



Symposium by Members of Second District Society.

[The following letter was recently sent to the members of the Second District Dental Society:

"DEAR DOCTOR:—The accusation has recently been made that only a very small percentage of the members of any society know how to write a paper. This, to me, seems an exaggerated statement, and I would very much like to prove that, at least among our members in the Second District Society, the ability exists to write of that which we know. In order to accomplish this, I am anxious to have a paper, long or short, from every member of our society. Very truly yours,

"R. OTTOLENGUI."]

Letters from Dr. William B. Furd.

I have received your letter, in which you request me to write a paper. For one reason only I should like to write a paper, and that is, to comply with your request.

You say that "The accusation has been made that but a very small percentage of the members of any society know how to write a paper." I may say frankly that I am quite in sympathy with the accusation. I know that I have spoiled a great quantity of good writing paper in trying to write a paper, and, when disgusted with my effort, I have pronounced it finished, the only similarity to paper was before it was pressed. Simply, a pulp, or, in other words, soft, resembling nine-tenths of the papers written for publication.

Many of the profession are like some paper that you purchase (labeled) "hard pressed," in time, money and ability, and can scarcely be expected to possess the literary ability to write a scholarly paper. You see I have written this on what is known as "fool's-cap" paper, and perhaps

the cap is better suited to the writer than the paper. I should be afraid, should I make an attempt to write a paper, that the saying of Sancho Panza would be very applicable to me, "The higher the monkey climbs, the more he shows his tail."

Accept my declination, my dear Ottolengui. I must avail myself of the provision of the law that shields a criminal from testifying against himself, for I am one of the accused.*

I have received your very complimentary letter and assurances, but I am still of the opinion that I am not a success in paper-making. I am not at home in the business. I know if I should attempt it, I should feel like a servant girl that once lived with us. She was relating to the family her condition, and the cold shoulders that were turned to her; how she was called greenhorn, etc., on her arrival in this country. She finally summed it all up by saying, "I wish to God I had never left Ireland." So I think I might better remain in my native sphere, in which I am indifferently successful.

You ask me to give you "something reminiscent." It would seem as though I ought to be able to relate an actual occurrence, and I will do so because I desire to please you.

**A Dental
Reminiscence
with a Moral.**

One day in my early practice of my profession, while shivering with the uncertainties of success, my office door opened and in walked an old lady whom I shall call Mrs. Smith, with as kind and good a face as one would wish to look at. She was seventy years of age, I should think. A good country mother, whose hands showed the marks of hard labor, whose brow bore the wrinkles of anxiety. I afterwards learned that she had reared a large family who had left the old homestead to shift for themselves. At last her husband died and she was left alone. She was plain and without the furbelows of fashion. Her language was that of an intelligent country lady—one who desired to do only that which was right. Her voice was one that had been trained by attrition and affection—the voice of a good, kind country mother, who had come to get a set of teeth, and not to see how much she could get for her money; not to dictate and find fault. Her teeth, like her family, had all left her.

On entering the office, she asked if I was Dr. Hurd. I said, I was. She said she had come from an adjoining town to see about having some

*This declination was not accepted, a second letter was sent to Dr. Hurd, his reply being here given.

new teeth. We talked the matter all over; of the expense, and the pains and penalties to which she would be subjected. Everything was settled upon, and I took the impressions of her mouth, which, she declared, was not half as bad as her neighbors had said they would be. I fixed the time for her to visit me again, and we bade each other good-bye. If she felt as pleasantly toward me as I did toward her, we were a most loving couple. I wanted the money, and she wanted the teeth. I went to work with a heart full of happiness. She visited me promptly at the times specified until the teeth were ready for the mouth. Her teeth having all gone, her nose and chin were near neighbors and she looked as old as she was. The time fixed for inserting the teeth, my patient arrived earlier than usual, undoubtedly thinking it would take all the morning to put them in. She had hardly taken her seat in the chair when I slipped the teeth into her mouth, which changed her apparently from a woman of seventy to a woman of forty. She sat and looked at me as though she were expecting something more. I gave her a hand glass. She looked at her teeth, then at me and said, "Why they are in, ain't they?" I think she looked at them fully an hour, smiling and turning every way. I saw the tears starting, and she looked down and said, "How I wish John (her husband) could see me." She added, "Doctor, I am delighted with my teeth, and if I could not get another set, I would sooner part with my home lot than part with these teeth." She paid me for the teeth, and while counting out the money, she said, "Doctor, this money came from selling butter, eggs, cheese and geese feathers, and I remember exactly receiving four dollars and twenty-three cents for a spring calf I sold, and eighty-seven cents for a string of sausages." Why, I said, "Mrs. Smith, you have put most everything into your teeth." The old lady took the joke and laughed as though she would die, and I almost did the same looking at her.

In about two weeks my door opened again, and in came my dear old lady, saying, "Doctor, I do not like my teeth." I said, "do they hurt you?" "Why, no," she said, "and I eat a little with them." "Well," I said, "what is the matter?" "Why, Mrs. Black says they are too long. Mrs. Jones says they are too short. Mrs. White says they are too light. Mrs. Cross says they are too dark, and Mrs. Punderford says I do not look natural." "Please let me look at the teeth," I said. She gave them to me and I gave her a hand glass and said, "Now, Mrs. Smith, that is what they call 'looking natural.'" "Oh! Oh! dear!" she said, "I guess I have had the natural look long enough." I said, "Mrs. Smith, I want to ask a favor of you." She answered, "Anything will be granted." "What I want you to do is this. When your sewing society meets again, ask them how they like your teeth since you have had them altered." She

said, "Why how did you know it was at the sewing society that what I told you was said?" "Oh," I said, "you had the last thing that was new, and it was a fruitful subject for each to expatiate upon." "I will do as you suggest, Doctor," she replied. I did not see her for fully three months after, when she came in and said, "I did as you told me to do, and they all said they are every way right *now*." A few months later the good old lady was married again, and she gave me the credit not only of making her a good set of teeth, but making a match.

Treatment of Abscessed Teeth.

By THEO. SIQVELAND, D.D.S., Brooklyn, N. Y.

When your circular letter was received, the following mental interrogations were almost instantaneous, viz.: "Is a new examining board of the 'mill product' to be established? Has my esteemed colleague given up his excellent plan concerning the 'mills' themselves, or is it simply his connection with the precious ITEMS OF INTEREST which prompts him to such an elaborate undertaking? Can it be possible that the anonymous accuser is such an important personage that notice should be taken of him, and he himself be deprived of the opportunity and pleasure to prove the correctness of his accusation?"

To me, this accusation, like others we occasionally hear at our dental meetings, seems too flimsy and unimportant to take notice of, except as far as it reflects upon the accuser. Possibly he has a gift for writing. If so, he ought to be thankful and develop this talent, and not try to elevate himself at the expense of less fortunate or more modest practitioners. No matter how desirable an accomplishment it is to the individual, and beneficial to our societies and magazines, to write and present papers worthy their object, this ability fortunately is not the final and critical test of a dentist. His duties towards his patients certainly must be pre-eminent, and the skill, as well as the conscientious manner in which he fulfils these duties, the only true test.

What is literary ability, or the reputation of being able to speak on all occasions, compared to the kind, gentle, sympathetic nature which knows when to keep silent, and is able to dismiss from the patient's mind the dread of the dental chair and office? What about the greatest of all gifts to a dentist—the delicate touch, and the knowledge of where and

how to apply it? From a patient's standpoint, and when we take our duties toward the public into consideration, there can be but one answer. The only reasonable conclusion I come to is, that the editor's interest in the ITEMS OF INTEREST and his desire for contributions has inspired him to apply this little stimulus to the members of the Second District Society, and I trust he will meet with success. No one, certainly, can feel more unqualified than myself, and, yet, I comply with the request. First, on account of my interest in and duty toward the Second District Dental Society. Second, because my conscience pricks me a little in thinking that I may be one of the causes for the accusation mentioned.

I can only be classified among the socially passive members who feel themselves unable to write or speak satisfactorily in a language, not my native tongue, and consequently prefer not to impose upon the patient listeners in our societies.

Should this elaboration on your own letter not suffice, or meet with your approval, I will add a condensed report of a practical case. A rather old and threadbare subject for which, as an excuse, I offer the discussion of Dr. Peck's excellent paper in the *Cosmos* No. 1, Vol. XLI., pages 73 and 74.

In my practice I find it of vital importance to influence medicinally the pericementum when and where inflammation exists, either acute or chronic. For this reason I prefer a noncoagulating antiseptic, which will penetrate beyond the tooth or root, and accomplish in most cases the desired results, even if the apical foramen has not mechanically been opened or enlarged for this purpose.

Cinnamon Oil
in
Abscessed Teeth.

In roots, as well as in posterior teeth, I invariably use the oil of cinnamon with the most satisfactory results after one or two applications. Occasionally the irritation or soreness, spoken of by Dr. Peck in connection with this oil, will be noticed, but if only one drop is used for each root, the chances of disturbance are almost nil. To insure success, however, I always seal medicine with a cement filling.

As an illustration of the beneficial effect of cinnamon oil in abscessed teeth, and the importance of sealing, as perfectly as possible, this as well as all medicinal applications, I will relate one interesting case.

A gentleman, about thirty years of age, presented himself at my office two years ago, in a rather desperate state of mind, fully determined to have the left inferior first molar and the root of the second inferior bicuspid on the right side removed. For three years, both of these had been treated, off and on, exhausting the patience of two dentists as well as the patient himself. The trouble increased instead of diminished, until finally the forceps was looked upon as the only sure cure.

Only after the assurance that the last dentist had abandoned the case as hopeless, did I consent to an examination, and I found, in the molar an exposed, exceedingly irritated pulp, while the bicuspid was in a putrescent, abscessed state. Before extracting, I asked and received permission to treat them for three weeks and no longer.

Two applications of arsenious acid covered with
Treatment. cement fillings were required before pulp was removed, and roots as well as a large compound cavity filled. Very little discomfort during treatment, and none since the permanent filling was inserted.

The root of the bicuspid had to be surrounded by a gold band or collar before the rubber dam could be adjusted and subsequent cleaning and treatment accomplished. After the root had been repeatedly cleansed with electrozone, and the apical foramen opened, one drop of cinnamon oil on cotton was introduced and the root sealed with a cement filling. Contrary to expectation, and to my gratification, this one application was the only one necessary before the root, three weeks later, was restored to its former usefulness by a Logan crown. No sign of discomfort has since been experienced.

Why these astonishing results in comparison to three long years of useless treatment and annoyance? The only explanation I can give, according to my patient's description, is that my predecessors did not consider it worth while to protect the medicine by anything but cotton and sandarach varnish, thus losing its effect. If a tooth or root is worth saving for future usefulness, it certainly is worthy the most careful antiseptic and painstaking attention in every detail of the operation. Unless the root is split, perforated or necrosis exists, success is certain.

A Mistake in Diagnosis.

By H. C. GILCHREST, D.D.S., Nyack, N. Y.

As we all are liable to make mistakes at times in our diagnosis of different cases, I report this incident of office practice as it may benefit some one in the future who might have a similar case.

Miss T—r, a young lady of about twenty years of age, came to me for consultation regarding a fistulous opening in the right superior maxilla just back of the second molar. She stated that there had been

a slight flow of pus for about three months previously accompanied with neuralgic pains which had been a great annoyance to her. Upon examination I found I could pass a probe up through the fistulous tract for about one inch before I came in contact with any obstruction.

I diagnosed the case as encysted wisdom tooth due to lack of room for eruption and stated that it would need to be removed before the jaw would get well, but she was a little in doubt as to my opinion and decided to wait awhile before submitting to an operation.

Her home being in Florida, I did not see her again for one year, after which she came to my office accompanied by a physician, who stated that something must be done for her, as she was very much reduced in health and quite worried in mind.

Upon questioning her I found that she had been through the hands of several physicians and dentists at her home, all of whom had diagnosed the case as one of necrosis of the jaw bone except one, and he said that it was a cancerous formation and that the only remedy was an external operation.

But inasmuch as she was a pretty and prepossessing young woman she had hesitated to have the operation performed until she had seen me once more, whereupon I made another examination with her physician and again I diagnosed it as an unerupted wisdom tooth, but he seemed to think that it was necrosed bone.

I gave her gas and extracted her second molar tooth; then with my lancet I opened the gum from the socket of the extracted tooth to the fistulous opening, cutting down to the bone of the alveolar process. I then ordered the wound to be kept packed with antiseptic gauze for one week, changing the gauze each day. At the end of that time I removed the gauze and upon an examination with the mouth mirror I discovered the glistening surface of a tooth. The attending physician then admitted that I was correct in my diagnosis after all.

I administered gas again and undertook to extract the tooth, but much to my amazement just as I attempted to grasp the tooth it disappeared from my view; in feeling for it with a probe I found a pus cavity about half inch in diameter and the tooth at the bottom of it.

The patient being somewhat exhausted I deferred the removal of the tooth until another time. The next day her physician in probing in the cavity dislodged the tooth and it fell down in her mouth. She came to me with it in her hand and with a smile upon her face she expressed her gratitude for what had been done for her.

I kept the cavity open with a strip of antiseptic gauze so as to allow the healthy granulations to deposit at the bottom of the cavity and directed her to use Listerine as a mouth wash. This was kept up for about

three weeks, when the wound healed nicely, leaving the jaw and the surrounding parts in a perfectly healthy condition.

A Method of Pulp Canal Filling.

By G. W. KNIGHT, D.D.S., Brooklyn, N. Y.

The subject of dead teeth from the standpoint of discussion is as old as the hills, and an apology is instinctively suggested when the matter is even mentioned. Yet it is not as threadbare as might be supposed after passing through so many hands; the question is vital to all, being as it is an every-day problem demanding an accurate solution, and I have faith to believe that there are many whom it will interest.

The history of the literature and discussion of this topic is entertaining as well as instructive, and leads to two suspicions. First, that there is more than one royal road to success; and, secondly, that many roads to failure are made so by the manner in which they are traveled. It is safe to assert that, all positive statements to the contrary notwithstanding, there are ways and materials which can be employed to reach the desired end, and not one way and one material only. It is an equally safe statement that any method and any material may become a means to disaster if employed unskillfully.

It is not the purpose of this paper to touch on the opening of the root canal; it presumes that all that has been properly attended to. Schreier method and Donaldson cleansers, if you will, but the greatest care and patience surely, and the canal cleaned, sterilized and opened to the very best of the operator's ability.

Nor is it intended to discuss the relative merits of materials which might be employed for the purpose of filling the canal. The aim is simply to present a method by which the operator can feel, when he has finished the work, that the canal is filled and filled as it should be.

There are certain qualities which the ideal canal filling should possess, and the first of these is adaptability. Time, care and labor are spent in opening the canal and getting the root into a healthy condition; it is discouraging to employ a material in the filling process which possesses the possibility of clogging the canal when half way to the apex, thereby leaving the remaining and troublesome end

**Requisite Qualities
of a
Root Filling.**

open to invite a return of putrefactive conditions and their resultant evils. The material should also adhere closely to the walls of the canal, sealing every crevice and as far as possible the microscopic openings of the canaliculi, thereby acting as a mechanical preventive of putrefaction by excluding the ingress and egress of air or gases to or from these tiny channels.

Secondly, compatibility. When the apical foramen is large, or when extra effort has been made to force the filling home, a slight portion of the filling may occasionally find its way through the opening into the tissue beyond. Any material would, under these conditions, act as a foreign body and be treated as such, causing inflammation. It is desirable, therefore, to use a substance which will be absorbed or become readily acceptable under such circumstances. If the substance has antiseptic properties it will be additionally valuable, continuing the sterilization of the canal if that important work has not been completely done.

Thirdly, removability. A pulpless tooth is next door neighbor to a crowned root and the ready removal of the filling, to admit the introduction of a pivot is a great convenience. Occasionally, also, it may be necessary to remove the filling to reach an abscess.

**Root Filling
Recommended.**

A proper combination and manipulation of oxy-chloride of zinc cement, low heat gutta percha and electrozone will give a filling which will fulfil the above requirements. First wind two or three fine broaches or old Donaldson bristles with shreds of cotton and lay them on the operating table beside a mixing slab on which is placed two or three low heat gutta percha cones, one drop of electrozone (concentrated) and the proper proportions of liquid and powder of the cement. Next, having the canal dry, incorporate the cement powder with electrozone and add sufficient of the cement liquid to make a creamy paste, which is immediately picked up by one of the cotton twisted broaches and pumped into the canal, repeating this until there is a slight indication of pain, or until you are confident that the filling has reached the apex. Follow this with one of the gutta percha cones very slightly warmed on a canal plugger and the work is done. The combination of the cement with the electrozone hastens the elimination of chlorine and other sterilizing gases which more or less permeate the dentine. This combination also prevents the cement from setting hard. The pumping process insures the cement reaching the apex and the lining of the sides of the canal to which it will adhere. The packing in of the low heat gutta percha compresses the cement, forcing it still more into place in every direction and also leaves a gutta percha core to facilitate removal should it ever be necessary. The beginning of the canal should be large enough to give the broach piston

proper play, while the remainder of the canal need only be enlarged sufficiently to admit the finest Donaldson cleanser.

A Dentifrice.

By DR. W. I. WALLACE, Saugerties, N. Y.

What is offered may not be new, for a wise man of old has told us "there is nothing new under the sun," but it is original in one sense, as I have never seen the same formula in print.

While attending the New York Dental School in 1893-'4, one of the lecturers mentioned the requirements of a good dentifrice, but left each student to study out what was necessary, and I judge others are no better instructed.

Dentfrices supplied by the drug stores are generally chalk and some scent, or chalk and carbolic acid, if in powder form. If a paste, castile soap is added. The fluid forms have a decoction of soap bark with aromatics. These are good as cleansing agents, but other things should be considered as well. The formula which I offer is:

Precipitated chalk.....	1b. j
Bicarbonate of soda.....	℥ iij
Cocoa butter.....	℥ ij
Oil of cassia.....	3 iv
Krameria tincture.....	3 iij

The proper mixing of the ingredients is a matter of some importance. Melt the cocoa butter over steam, as it scorches readily, then add the oil of cassia and krameria, stir well and then incorporate the soda, and lastly, the chalk. After stirring well together, turn out on a piece of heavy sized paper and spatulate thoroughly to work out little lumps that will form. This gives a smooth fine powder. The krameria is simply a coloring, giving a delicate pink. Harmless.

Oil of cassia is a germicide. The cocoa butter being of an oily nature, holds the cassia longer and seems the most pleasant and is also nourishing and soothing to the gums. The soda bicarbonate neutralizes any acid formed by fermentation, and assists to prevent salivary calculus.

This makes a very agreeable dentifrice for regular use, and I have found it especially beneficial in those cases where the gums are congested at the margins, and the teeth commencing to be loosened, hardly to be classed as pyorrheal, more of the nature of subacute or chronic gingivitis. Two or three applications of calendula tincture, and the use of the powder each evening the last thing before retiring, being particular to leave what tooth powder remains about the teeth, has, after a time, restored the gums to a healthy condition and the teeth have become normally firm again.

In the June or July number of *ITEMS OF INTEREST*, 1894, I think there is an article from the pen of an English dentist naming most of these ingredients as an "ideal tooth powder"; no proportions or quantities are there given, however.

Amalgam Pills.

By W. ANDRE CAMPBELL, M.D.S., Brooklyn, N. Y.

The component parts of amalgam pills in olden times, that is, my early dental days, consisted of two parts of granulated silver to one part of pure tin. And how surprising to find how varied the product might be from this simple formula. No less than three varieties are produced in the fusion alone, for if the silver is overheated, when the tin is added, a portion of it (the tin) is lost in the fuse; if the silver is underheated, an imperfect amalgamation is the result; but with a proper temperature, then the perfect product, and that is easily spoiled or changed, for if the melted mass is poured into an overheated or underheated ingot (the specific gravity of the two metals being so different), this will also cause an imperfect product. So it is difficult to get a uniform composition, and when obtained, the filings or shavings can again be robbed of some of their good qualities by an excess or an insufficient quantity of quicksilver. Therefore, is it possible to obtain a positive and perfect amalgam, even from any of the up-to-date formulas?

Possibly Dr. Black *may* know (manufacturers of course *do* know), and possibly the present scientific methods have overcome these difficulties. My experience and observation, however, do not warrant the assumption.

There is no doubt that there are good productions, at times, and good manipulation also from any of the formulas, for I have seen a fill-

ing which stood the test of use for thirty years, and was then in perfect condition. That, of course, must have been made from the original simple formula.

Mercurial poisoning from amalgam pills, as has been claimed, I decline to believe. The original formula required a large proportion of quicksilver to make it plastic, and always mixed in the palm of the hand, which I have done for the past thirty-five years, and have noticed no bad results to patients or myself.

In my early days of dentistry, I had an opportunity to fill for a brother dentist a superior third molar. I was about to place the pill (which was as large as a good sized pea) in position (they were always made in that form in those days and put in the cavity whole, and in a very soft mass), when I had the pleasure of seeing it fall off my fingers (it was usually carried by the finger at that time) and quietly and gently roll down his esophagus. There was no effect, either bad or good, from the voluntary dose. He is still living.

I am inclined to believe Dr. Tuthill's (physician) experience with this kind of "pill," and its bad results—mercurial poisoning—which he claims were in his teeth thirty-eight years, is a case of imperfect diagnosis. He says he had *them* removed. What could he have had removed? If the system had already absorbed *them*, and if the system was already surcharged with mercury, how could he find relief by adding more, as he says he did, by using bichlorid of mercury as a dressing? However, it may be an idiosyncrasy of his, and we will be charitable.

Dentistry in the Army.

By HOMER C. CROSCUP, D.D.S., Brooklyn, N. Y.

Having had some experience in the Army during the Spanish-American war, it might be interesting to the members of the Second District Society, as well as the profession at large, to know to what extent dentistry is practiced in the service.

In the first place the Army regulations make no provision for dentists, therefore, the enlisted men, and also the officers, are put to a good deal of inconvenience and expense at times, particularly in time of war, when it becomes necessary for them to have dental attention, necessitating their being absent from the post, garrison or camp for a considerable time, especially when the nearest dentist may be located many miles away.

My connection with the Army was not in the capacity of dental surgeon, nor in the medical department, but as a line and field officer in the Fourteenth Regiment of Infantry, United State Volunteers, having served successively as First Lieutenant, Battalion Adjutant and Captain under Colonel, now Brigadier-General Frederick Dent Grant.

Thinking, however, that I would possibly be of service in my professional capacity during the campaign, I provided myself with a few forceps, lancets and other instruments for emergency cases, which I packed up with my other belongings for future use.

My regiment was mustered into the United States service at Camp Black, Long Island, on May 16, 1898, and there being a report that Spanish gun boats were dangerously near our coast, our plans for going by transport to Tampa, Florida, were abandoned, and we proceeded by rail to Chickamauga, Georgia, on the following day, where we established a permanent camp, remaining there until late in August, when we were sent to Anniston, Alabama.

The nearest town to the Chickamauga camp is Chattanooga, Tennessee, eleven miles distant. At first we were fortunate in having a dentist in the hospital corps, Dr. Alfred M. Borton, who left a practice in Brooklyn to see service at the front, but who is now with the great majority, having contracted typhoid fever soon after the regiment reached the South, from which he died after a few days' illness. Truly a hard death for a soldier.

It was then that I began to realize that I was likely to be kept busy in the dual capacity of dental surgeon and company commander, there being about thirteen hundred men in my regiment, and five other regiments of different branches of the service, with about the same number of men each, stationed in close proximity. I found they were as badly off as far as dentists were concerned as the 14th; in fact much worse. As far as I have been able to learn I was the only dentist, after the death of Dr. Borton, in the entire first division of the Third Army Corps.

Dental Services in Camp.	It became necessary for me to systematize my work in the dental line, as my other duties were various and did not permit of interruption, so I arranged to be at the hospital tent one hour each day to attend all comers, and nearly every day a line of from twenty to thirty awaited my arrival.
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Of course, extraction, in the majority of cases, was the necessary treatment under the circumstances, but if I had been prepared in the capacity of dental surgeon, nearly all the teeth thus sacrificed could have been saved. In many cases the teeth had been broken by accident; it would have been an easy matter to extirpate the pulps and prepare the

teeth for crowning. Many of these accidents occurred in the regular drills and exercises, while serving under the Government and under orders, and the least Uncle Sam could do, would be to give them proper care and treatment.

I remember upon one occasion after a drill in battle formation, extended order, two men came to me suffering from fractured incisors, one having been struck in the mouth with the butt of a rifle, breaking off the right superior central and lateral at the gum margin. From both roots the pulps protruded. I prepared sharp pieces of wood dipped in carbolic acid and forced them into the canals. This is an ancient practice and it came in handily at that time. I have subsequently placed crowns on both roots.

I had many cases from other regiments where the surgeons had made heroic endeavors to extract refractory molars, finally sending them to me to finish up. They, however, could hardly have expected to be successful with the instruments at their command.

Many lesions commonly observed in dental practice were met with, such as pulpitis, pericementitis, alveolar abscess, pyorrhea, epulis, diseases of the antrum, etc., etc.

Of course, only a small proportion of the Army came under my personal observation, but that was sufficient to demonstrate the fact that it is a duty which the Government owes its soldiers to make provision for the proper care of their teeth, and to provide dentists as a recognized part of the Army establishment.

Of course, the fine, delicate and intricate operations could not well be performed in the field, but good, honest and conscientious dentists could always find a way to give good and faithful service, even under the most adverse circumstances, and this would be a great benefit to both officers and men. On the other hand, many young dentists would be glad of the opportunity to serve in the Army as dental surgeons, even though the remuneration be not as lucrative as in a private practice.

When the Hull bill was formulated, it provided for one hundred dentists in the Army, with the rank and pay of First Lieutenants. That would be about \$1,800 per year. Unfortunately, this bill was so defaced previous to its passage by Congress that it was hardly recognizable, and the section relating to dentists was stricken out to make room for something else. Knowing, however, the advantage this would be to the service, I am still hopeful that it may yet become a law.

Combination Filling.

By F. B. SPOONER, D.D.S., Brooklyn.

For the last two years I have been experimenting to find the "ideal" filling so long talked about in our meetings. I do not mean to say it is found, but will give the result of my efforts.

We all know the essentials of the "ideal." Gold costs too much in time and material. Amalgam shrinks, discolors, and is a conductor. Cement is perishable, but ideal in all other respects. Could we get cement to be as lasting as amalgam, what a stride it would be.

The method which I shall describe occurred to me while I studied the manner by which the crumbling of the river bank at Wheeling is prevented. There the approach of the river is paved with stone mixed with the soft earth. This is done so that the wash of the river at high mark, and the passage of vehicles shall not wear through. The same thing is seen in a chimney exposed to long years of weather. If it were made of mortar, it would soon succumb, but as it shows, the mortar is eaten out between the bricks only to a degree.

The conclusion was reached that if I could mix my cement with metal cobbles, the wash of saliva and other causes of disintegration could be lessened.

Mixing my cement with various quantities of alloy, I finally hit on this. On a pad was placed two equal piles of material, one amalgam, the other cement; also acid Q S. The alloy was *first* mixed with the liquid. Why? To be sure that the metal becomes thoroughly coated with the liquid. No fear that the cement would finally mingle with the acid, and also form perfect union with the metal. Next mix the zinc powder with the wet alloy, working it up to a tolerably stiff mass. It may be said, by the way, that there is *much* in spatulating cement. It should be so done that all parts be thoroughly incorporated.

A lesson may be taken from a laborer who mixes mortar with hair, sand and lime. They should be a chopping, grinding, pressing, rotary motion, all at one and the same time.

The mass hardens quickly, and so has to be handled with expedition. Sometimes I put a part of the softer mix into the cavity, following with the stiffer. In this way I get more adhesion with the one, and strength with the last. A surplus is put in while an instrument dipped into the powder can be used to contour the filling to the edges. A matrix is also used slightly oiled, when it is desirable to do so.

Stress is laid on *first* mixing the alloy with the liquid. At the risk of being tedious, will say that it is to ensure the cement going into the intermolecular spaces, formed by the alloy as the molecules. As the alloy is first coated with the fluid, it is certain that the cement will adhere to the metal, leaving no soft spots. Hence the great point is "if you use it, use it right." Moreover, I speak of the *way*, as already a method has been advocated of mingling cement and alloy which has been briefly told of in an Atlanta magazine. I read of the same while pursuing my researches.

I do not think that alloy is necessary for the work; on the contrary, tin filings would be preferable on the ground of cheapness, and that discoloration would not occur.

We have for this filling the following advantages:

A non-conductor, better than amalgam.

Adhesive, holding together frail walls.

Result, a filling that will not expand, contract, or discolor; a filling that will not wash nor wear away as soon as cement.

As this combination has not been in use more than two years, data as to its permanence is not obtainable, although up to date the results are favorable. Time must show how far it falls short of amalgam in resistance to mastication. Still this feature is far from *all* in fixing the value of a filling. Those fatal margins will always menace an amalgam. As a rope "is only as strong as its weakest point," so a filling with this weakness may fail in the long run against a material with tight edges, but less ability to resist attrition.

This much seems fair to conclude that (while I am far from desiring to discard amalgam) there are times when it is not indicated, and that if only the life of a cement filling is prolonged, it is a step onward.

A Peculiar Restoration.

By ELLISON HILLYER, D.D.S., Brooklyn, N. Y.

The crowning of an upper lateral incisor is an easy matter where conditions exist which warrant the cutting off of the tooth and the usual procedure of root trimming, concluding with the usual crowning.

When a case presents which requires restoration, such as the following, some study of the case is necessary to meet the required success. It is with this thought in mind that I take up the description of this case, trusting it may be of benefit to some one.

The case presented a perfectly formed upper arch with the exception of the lateral incisors; the right lateral was missing with no space between the central incisor and the canine; the left lateral was a mere peg-shaped tooth of nearly the proper length, but in other respects undeveloped (as far as shape is concerned). To restore this to proper shape and appearance was the object.

The patient, a young lady and a singer, felt the effect of the appearance of her mouth when showing her teeth, and the result was an habitual dropping of the lip upon the left side in the endeavor to cover the defect. A further object, therefore, was to correct this habit.

The tooth, peg shaped though it was, was fully alive, with perfectly formed enamel and no cavities. The plan of destroying the pulp and utilizing the canal did not appear advisable, nor did I desire to cut off the tooth. I finally decided to proceed without disturbing the existing conditions.

As the recital of failure is often as valuable a guide as of success in warning how not to proceed, and as ultimate success crowned my efforts in this case, I will tell how the first attempt did not succeed and why.

After making a die and counter-die and swaging a perfect fitting cap for the tooth of thin platinum, I selected a lateral tooth suitable as to size and color; then without regard to the pins, I ground the tooth to fit over the labial aspect of the cap in position upon the tooth. This completed, I baked the two (cap and porcelain tooth) together with continuous gum body. When cemented upon the tooth, the conditions appeared quite satisfactory for a short time, at the expiration of which the patient returned with the facing bitten off. The conclusion was that the porcelain was not sufficiently strong in itself to withstand the strain. So much for the failure.

Proceeding with a capping of platinum similar to the first, I selected a cuspid tooth about twice the required length, or at least long enough to cover the peg-shaped tooth with the porcelain above the pins. I then cut off the remaining portion of the porcelain tooth below the line of the pins and ground to fit the capping, as before, but preserving the pins. I used in this instance a cuspid tooth for two reasons; first, to match the opposite cuspid (the right lateral being missing), and, second, to allow a little extra support of porcelain to the pins by the pointing of the tooth. The appearance of this tooth was better than the first.

With the porcelain tooth in position against the platinum capping, I bent up the pins on each side of the capping and soldered with pure gold, subsequently covering the back with continuous gum body as before. This, when set upon the peg-shaped tooth, restored the part satisfactorily, and has given active service for about a year, and seems good for prolonged use.

An Unusual Case.

By J. H. HANNING, M.D.S., Brooklyn, N. Y.

It gives me pleasure to bring to the notice of the profession this unusual case as an example of the advantage of co-operation between surgeon and dentist, at a time when the patient and her parents were without hope.

The patient was healthy and strong until two years of age, when she was attacked by scarlet fever. The early history of the case is not as clear as desirable. As near as can be ascertained, the fever left her in feeble

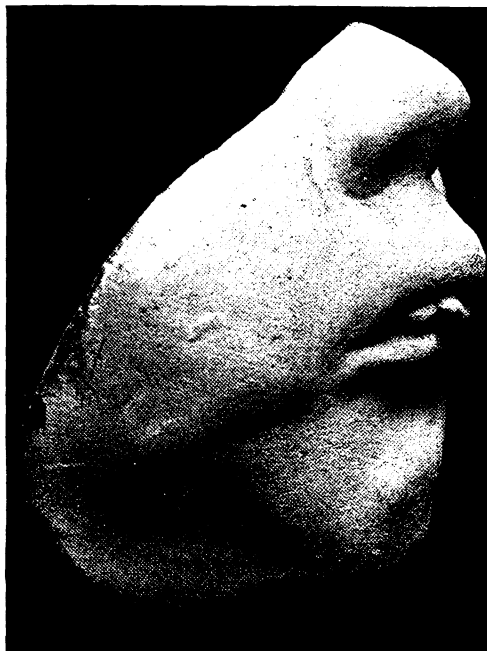


FIG. 1.

condition, and abscesses appeared on both sides along the border of the lower maxilla. The family physician, after treating for some time, resorted to mercury, which increased the trouble.

The case was finally abandoned by him, and a surgeon called in by the father of the patient. The surgeon diagnosed necrosis of the body of the jaw (both sides), and advised removal to save life.

The necrotic bone extended from rami to chin, including process and body. All diseased bone was removed, leaving two-thirds of rami and

chin. Seven anterior teeth were saved. The chin collapsed, having nothing but the tongue to support it. The periosteum deposited new bone, forming a new body on each side. At the age of twelve the family dentist told the mother that the patient's condition could not be improved.

The patient was fourteen years of age when I first saw her. Upon examination I found the lower jaw undeveloped, with a receding chin, and cicatrices, broad and depressed on each side at lower border of the jaw (Fig. 1). The upper jaw was quite narrow, with great protrusion in incisor region (Fig. 2). She had been under treatment by a throat specialist

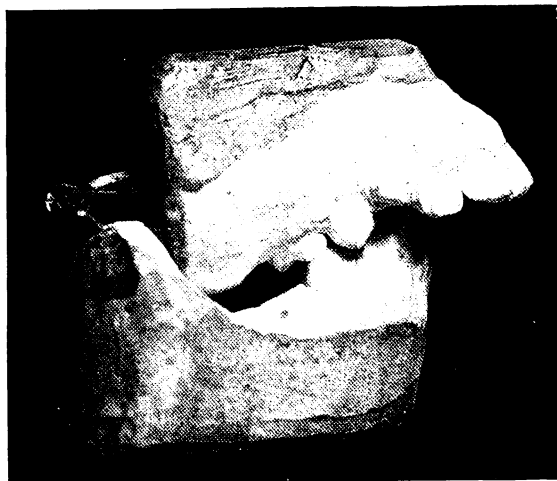


FIG. 2.

for over a year without relief, and used the mouth almost exclusively for breathing. I assured the parents and patient that an improvement could be made by plastic operation and regulation of teeth.

I asked and obtained permission to present patient at the "Dwinelle Clinic" for consultation.

None would express an opinion.

Left to my own resources I consulted Dr. Robert H. M. Dawbarn.

When Dr. Dawbarn made an examination he discovered the pharynx occluded with adenoids, which he decided must be removed before operation on face or teeth.

**Operations
Performed.**

On June 9, 1897, adenoids and tonsils were removed, at the patient's residence, from which operation she recovered quickly.

On June 16, 1897, at the French Hospital, the scar tissue of face and neck was dissected out and flaps raised from bone.

The incision extended from ear to ear along the lower border of the jaw. On left side a fistula was found which had discharged from time to time. Tracing this the surgeon found embedded in the bone a sac containing a molar lying at right angles to body of jaw, the crown toward tongue. This tooth was removed through wound, and abscess curetted. The edges of wound were brought together evenly and sutured, leaving a small open-

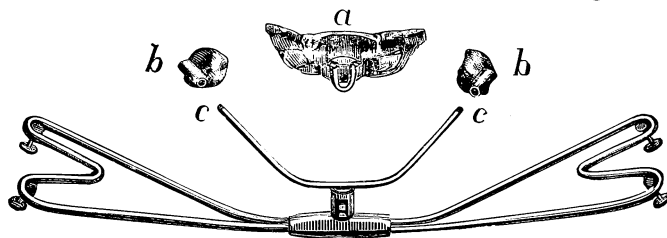


FIG. 3.

ing on each side, through which sterilized vaseline was injected until face showed proper contour. The remaining aperture was closed, and a dressing applied. The wound did not heal readily (owing to vaseline), and left too broad a cicatrix.

A second operation on face was performed on November 8, 1897.

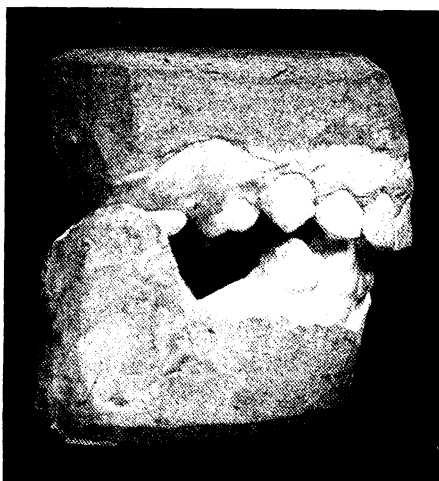


FIG. 4.

On making the incision surgeon found that vaseline was almost completely absorbed, connective tissue filling its place. This time a rapid recovery ensued, the scar being narrow and depression eliminated except a small place on left side.

**Regulation
of the Teeth.**

An examination of the mouth showed that there were no teeth strong enough to serve as anchors in retracting the anterior portion of the jaw. The cuspids were just presenting with barely enough room and a little outside of line of bicuspid. The first molar on the left side had been extracted by order of former family dentist, who told the mother that the incisors would fall back when this room was made. It will be

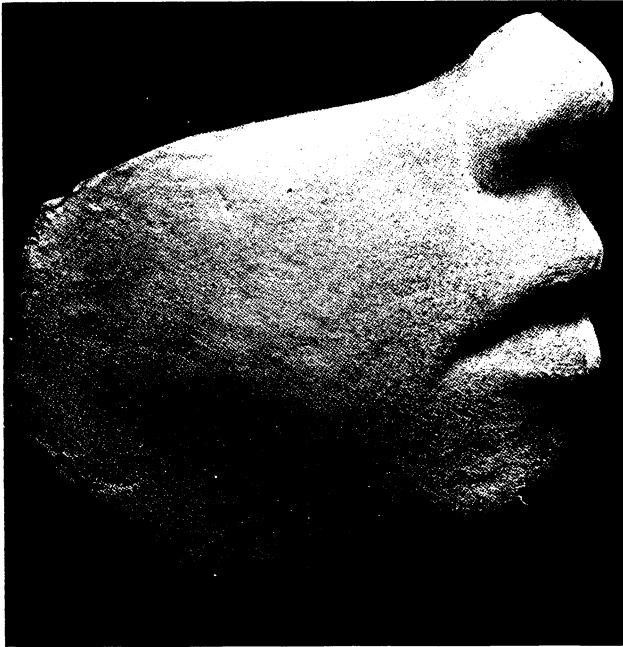


FIG. 5.

seen that the teeth did move some on that side, but only to increase deformity. He also assured the mother that nothing more could be done except to make a plate to supply the missing molars and bicuspid of lower jaw.

I extracted the first bicuspid and retracted incisors with a cap and bit, which were worn at night only. During the day a retaining plate was worn. This plate was of vulcanite, covering the palate, with gold wire clasps and retaining wires anchored on each side of plate at space where first bicuspid was extracted, the free ends extending across labial surface of teeth to cuspids on opposite sides. The clasps embraced molar on one

side and bicuspid on the other. As the teeth moved back the anterior border of plate was trimmed and retaining wires bent back.

The first bit covered the four incisors. (Fig. 3 a.)

When regulation was about half finished the cuspids were forced out of alignment and considerably turned. Small gold caps (Fig. 3 bb) were swaged to fit cuspids. On the buccal surface of caps, tubes with posterior ends closed were soldered horizontally. These caps were held in place with cement.

The second bit (Fig. 3 cc) was made of German silver wire, the ends of which fitted the tubes. When bit was in place the central portion pressed upon incisors, forcing them back, while the ends in the tubes turned and retracted the cuspids, bringing all six anterior teeth into position.

When the regulating of the upper jaw was finished an apparatus for jumping the bite was introduced, and is still in use.

The cast of upper jaw (Fig. 4) shows the present condition of the mouth part, while Fig. 5 shows the external aspect.

Retracting was begun January 10, 1898, and was completed about the 15th of June, 1898.

A vulcanite plate is now worn on lower jaw, carrying four molars, which enables patient to masticate with ease. When I first saw her she was delicate, and sensitive about her appearance. She is now in the best of health and spirits, having made a decided gain in weight and general appearance.

I desire to thank Dr. V. H. Jackson for his suggestions as to modified apparatus for this case.

Nervanin.

By DR. A. D. KYNER, Blue Mound, Ill.

Within the past year orthoform has filled a place that has, heretofore, been practically unoccupied by any remedy possessing the necessary qualifications of a topical anæsthetic. Such a remedy should be non-poisonous and of slow solubility. None in use was non-toxic; all were too rapidly absorbed and their action of but short duration. The slow absorption of orthoform by the tissues, its absolute non-toxicity and antiseptic properties fulfil all the requirements for such a preparation. The great success attending its use made it most desirable to obtain this salt in a soluble form for subcutaneous injections. The inventors, Prof. Einhorn and Dr. Heinz, have succeeded in obtaining a soluble compound of neutral

reaction, and have named it "Nervanin." Experiments have demonstrated that nervanin is but one-tenth as toxic as cocaine. Eight grains was found to be the maximum dose that could be administered subcutaneously without injury, and the experience of Drs. W. Rotenberger, Marcus and others confirm its practical non-toxicity.

For the extraction of teeth, a 5 per cent. solution is employed, and like eucaine, the solution may be boiled without decomposition. A sterilizing agent need not be added, as nervanin in 1 per cent. solution prevents bacterial growth.

I believe that a 5 per cent. solution of nervanin, if properly injected into ordinarily healthy gum tissue and allowed to act for from three to five minutes before operating, will produce a deeper, more profound and more prolonged anæsthesia than either cocaine or eucaine B. In extracting difficult roots, patients have experienced no pain when the alveolar process was cut through to grasp the root. I have never obtained this immunity from pain with other anæsthetics, and therefore believe that it penetrates deeply. The anæsthetic effect is prolonged for a number of hours after operating, as careful inquiries made of patients for whom I had extracted record absolute freedom from after pain. Careful attention was given to the gums to note whether any irritation was produced, and in every case examined the gums rapidly returned to a normal condition without œdema or sloughing. The non-irritating properties thus shown will especially recommend themselves to all who do not wish to treat "sore gums."



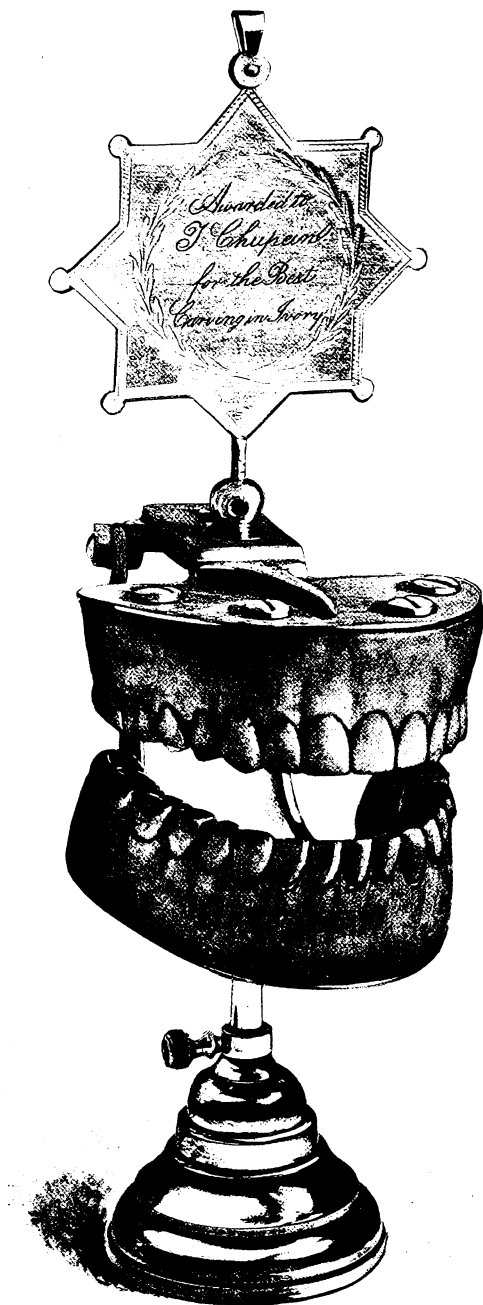


FIG. 55.

Donations to the Army Medical Museum.

(Continued from page 328).

The following additional contributions have been received for the Army Medical Museum:

Dr. Theodore Chupein, of Philadelphia, Pa., editor of *The Dental Office and Laboratory*, makes the following valuable donations:

No. 107. A handsome piece of carving in ivory, representing both jaws, all beautifully mounted, together with a silver medal awarded to the donor for the same. Of this carving the doctor writes: "The carving in ivory was executed when I was a boy, two years after I began the study of dentistry. My preceptor thought it good enough to send to the first fair of the South Carolina Institute, where the judges of award saw fit to award me a silver medal. (Fig. 55).

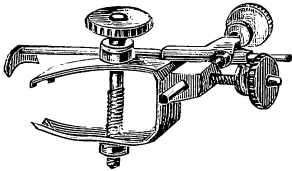


FIG. 56.

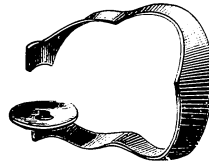


FIG. 57.

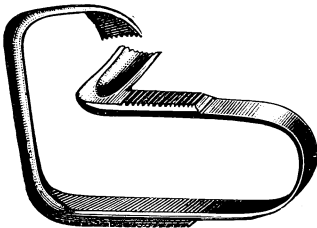


FIG. 58.

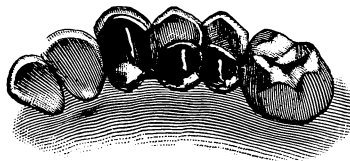


FIG. 59.

- No. 108.** Specimen of cervical clamp. (Fig. 56.)
- No. 109.** Specimen of cervical clamp. Disk holds a piece of cork so as not to hurt the gum. (Fig. 57).
- No. 110.** Specimen of the first clamp invented; applied with the fingers. (Fig. 58).
- No. 111.** Specimen of a piece of bridge work made by the donor, February, 1877. (Fig. 59.)

- No. 112.** Model of a very large jaw from a comparatively small man, the jaws measuring two and three-quarter inches across the molar region.
- No. 113.** Model showing excessive protrusion of the upper jaw.
- No. 114.** Model showing the good results of extracting poor sixth-year molars at the proper time. In both jaws the twelfth-year molars are in contact with the bicusps, and the occlusion throughout is perfect.
- No. 115.** Very large upper molar.
- No. 116.** Very long cuspid ($1\frac{3}{8}$ inches).
- No. 117.** Two lower molars—specimens of exostosis.
- No. 118.** Dr. J. R. Megraw, of Fayette, Mo., donates an upper molar heavily encrusted with tartar. (Fig. 60).



FIG. 60.



FIG. 61.

- No. 119.** Dr. Arthur Hooper, of Auckland, New Zealand, donates the plaster model of a lower cuspid having two well defined roots. This tooth was taken from the mouth of a patient from whom he also removed a three-rooted bicuspid.

- No. 120.** Dr. Walter A. Lewis, of Oakland, Cal., donates plaster model of two molars fused together. (Fig. 61).

- No. 121.** Dr. E. E. Slaton, Eclectic, Ala., donates a molar containing a shot which had been fired into it from a shotgun prior to its eruption. The case is described in this number, and the illustration appears on page 585.

- No. 122.** Dr. Gustavus North, of Cedar Rapids, Iowa, donates the model of a lower jaw from a man aged forty. The central and lateral incisors on the left side having their crowns fused together, the roots apparently bifurcated just below the gum margin.

No. 123.

Dr. T. C. Trigger, of St. Thomas, Canada, donates a model showing an anomaly of second dentition, there being two lateral incisors. The case is described in this issue, and the illustration appears on page 585.

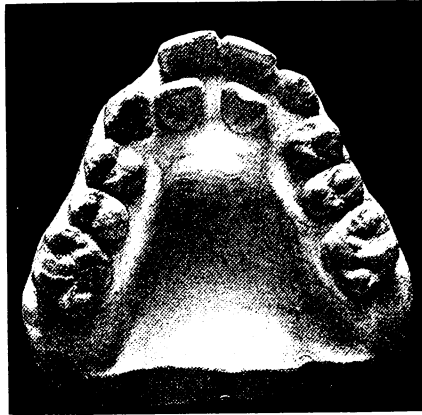


FIG. 62.

No. 124.

Dr. T. Sigveland, of Brooklyn, N. Y., donates model of superior jaw, lateral incisors appearing immediately behind the centrals. (Fig. 62).

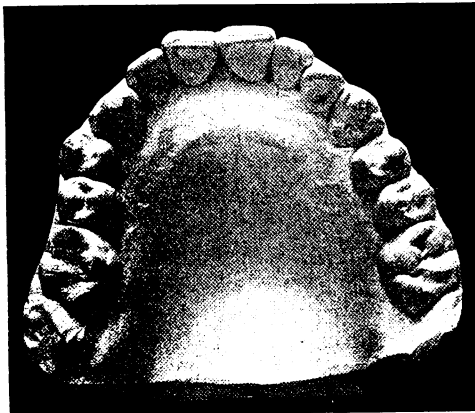


FIG. 63.

No. 125.

Model of a superior jaw, in which appear two lateral incisors. (Fig. 63).

No. 126.

Articulated models of a case of extreme protrusion from a boy aged fourteen.

Pressure Anesthesia.

By DR. S. FREEMAN, New York.

In reading the *Dental Cosmos* of June, 1899, I note, on page 549, a paper entitled "Pressure Anesthesia," read by Dr. William J. Morton before the New York Odontological Society, Feb. 21st, 1899. The method which Dr. Morton employs is simply a modification.

The general subject of "Pressure Anesthesia" was presented by me to the dental profession in an article read before "The American Dental Association in August, 1895, and can be found printed in the Transactions of that association of that year, pages 219 to 227.

The introduction of high and continuous air pressure which Dr. Van Woert explained before the New York Odontological Society, the methods of obtaining and storing the same, was fully explained and demonstrated by me in 1895. Before giving an abstract of my paper, I will call attention to the absurdity of the method employed by Dr. Van Woert, that of using a Davidson spray atomizer for applying cocaine, for the purpose of obtunding sensitive dentine. A Davidson atomizer contains two ounces of fluid, and at a pressure of twenty-five pounds, it takes one and three-quarter minutes to empty the bottle. It is not necessary for me to dwell upon the fallacy of such treatment, for the condition of the mouth and patient can be fully imagined.

If one will closely follow the methods employed by me, which I base upon scientific and clinical deductions, there is no doubt that he will gain considerable success. The following is an abstract of my paper read before The American Dental Association, August, 1895. The title of the paper is "The Use of Compressed Air in Operative Dentistry."

**Directions for
Use of
Compound Air.**

"Before applying any medicines to the gums, it is always necessary to have a dry surface, so that the medicament may be readily absorbed, and not distribute itself over the surface of the tissue. I found it somewhat difficult to obtain a dry condition of the gums in the posterior portion of the mouth before employing this apparatus; now I find it a very simple matter. By drawing back the corners of the mouth with a napkin, or piece of cottonoid, and throwing the compressed air directly to the spot, it only requires a few seconds to procure the desired condition of the mucosa, and upon applying your medicines, you get immediate absorption. *Now, I again have recourse to the air-pressure, which seems to drive the medicine deep into the tissue.*

In periostitis I prefer to use the cold air current, which in itself gives relief to the patient.

In this manner the application of counter-irritants, sedatives, and local anesthetics is made easy. With cocaine you do not obtain as deep an anesthesia as you do by hypodermic injection of the drug, but with a four per cent solution I was enabled to lance abscesses within twenty to thirty seconds, without pain.

Having considered the advantages derived from the aid of compressed air upon the soft tissues, I will briefly state the results procured through the medium of this agent on the hard tissues—the teeth. It is not necessary for me to cite in detail the minute anatomy of the teeth, although a thorough knowledge of the structure of the dentine is requisite to fully appreciate the ideas which I wish to convey. I will therefore ask your attention to a short review of the minute structure of this tissue. A great portion of the tooth consists of dentine, which is composed of an organic matrix richly impregnated with calcareous salts. This matrix is everywhere permeated with parallel tubes, which run, with some deviation, in a direction at right angles to the surface of the tooth. These tubes start by an open circular mouth upon the surface of the pulp; thence running outward toward the periphery of the dentine, they become smaller and break up into branches at a little distance beneath the surface of the dentine. Near the pulp they are so closely packed that there is little room between for the matrix, while near the outside of the tooth they are more widely separated. Their diameter is also greater near the pulp cavity.

These tubes are subject to slight varicosities, and their course is somewhat interrupted by a small interglobular space. Each tube is occupied by a small fibril, which is continuous with an odontoblast cell upon the surface of the pulp; of their real nature some doubts have been entertained, but I will not occupy your time by citing from different authorities.

These fibres cannot be considered nerves in the ordinary sense of the word, but there cannot be any doubt that they are media for the transmission of 'sensory' impressions from the dentine to the pulp, and that the *peripheral sensitiveness can be allayed by local applications*.

Drs. Harlan, Kirk and Truman demonstrated by experiment that there is an absorption of liquid by osmotic action. The former states that thymol will diffuse in moist dentine in from three to six hours at 98.4° F.; that non-coagulants, soluble in water, diffuse readily through tooth-structure, as has been shown repeatedly in experiments outside of the mouth; that oleaginous non-coagulants pass through the structure of the tooth quite slowly in the presence of water in serum albumen, and that the vaporizable portion of an essential oil will give to a substance which it permeates the characteristic odor in from three to six hours.

Drs. Truman and Kirk show by experiments that coagulants will penetrate the tooth structure, and Dr. Truman states "that in proportion to the coagulating power of the agent will be the penetrating force independent of gravitation."

These statements have awakened the profession, and provoked no little discussion, *although the controversial period is usually only a passing and never the most fruitful period of any new truth. After a science has gained a recognized footing, it has before it its real work to do. The*

question arises, what can you demonstrate? These gentlemen have established the fact that medicines will be absorbed through the tubuli *after a certain length of time.*

Now, you will remember that the glue-yielding portion of a tooth contains water to about two per cent of the weight of the entire tooth; bearing this in mind, let me ask you, my colleagues, what can we accomplish, after dehydration of the tissue, leaving entirely out of consideration the capillary attraction of these infinitesimal dentinal tubes? It has been demonstrated that when the water is removed from a tooth, the normal function of transmitting impressions seems to be modified. This desiccation can be accomplished by several agents—heat, cold and chemicals.

We know that heat or cold will produce pain; and in the application of either we should proceed with extreme caution.

I use a hot air syringe similar to the S. S. White's No. 30, only it has twice as large a cylinder; the chamber is filled with carbon, which is found to be one of the best materials for retaining caloric, and only requires a few minutes over a Bunsen burner flame to accomplish the requisite amount of heat. With this syringe attached to the compressed air apparatus, you can so regulate the flow of air that in from one to five minutes you have the tooth thoroughly dry; then introduce medicine heated to about 95° F., *again applying the warm air current with about forty pounds pressure, and you will be able to excavate the tooth without pain,* nor will you have any subsequent irritation. With this method it is not necessary to employ acids in introducing cocaine; nor is much of your valuable time wasted for the absorption of the medicament."

The Condition and Prospects of Dentistry in England.

By DR. EDWIN COLLINS, London, England.

The speeches, papers, discussion and demonstrations and their results in votes and resolutions, at the twenty-first annual meeting of the British Dental Association, just held at Ipswich, brings to a focus the ideas that most careful and intelligent observers have been recently forming as to the present and future of English dentistry. I shall come to facts presently. At the outset I have no hesitation in saying that 1899 marks a turning point in the career of the profession and of its relations with the general public and with other branches of the healing art in the United Kingdom. We have learned a lot from America, and while we are still learning from America, a few of us have something to teach American dentists; and if the advice of our best men, one or two of them Americans, be followed at home we shall have a great deal to teach you in America in a few years

time. That is to say, unless you take the hint before we have done preparing our lessons, and are ready to teach us before we begin your instruction, a mode of procedure not unprecedented on your brisk and go-ahead side of the herring pond.

There is a feeling of unrest in the whole profession in consequence of the facts that while the law is very stringent in its requirements that no man shall *call* himself a dentist who is not on the register, it not only makes no stipulation whatever as to the amount or kind of knowledge entitling him to a place there, but it also permits any man, woman or child to *practice* dentistry as much as he likes and to make a fortune by extracting healthy teeth and selling cheap dentures to those whom it has made artificially edentulous, without any qualification or study whatever. So long as he does not use the sacred name dentist, the idea represented is nothing in the eyes of our sapient law! Further: While some men have developed their medical knowledge to what the old-fashioned dentist considers an abnormal and unnecessary extent, but cannot make a plate, others pride themselves upon their mechanical and technical skill, but fancy that they are going to be looked down upon by their professional brethren unless they can obtain some official recognition of mechanical dentistry in the shape of a university degree; without, as they put it, spending more time and money than they can or ought to afford on the study of medicine and surgery "which they will never require." (?)

The question of a university degree for dentists is one on which there may very well be two opinions. In the first place, of course, it would add much to the dignity and status of the profession as a whole, and of individual dentists, if they had, as in America, France and some other countries, the title Doctor; but, it is felt here by most of the more scientific and highly trained dentists, the men who have what is called here the "double qualification," and have passed examinations entitling them to practice as surgeons or physicians in addition to their L.D.S.—it is felt by these men that the setting up of a new degree for dentists only has for its object the cheapening both in money and labor of the curriculum of the dental student. They note that most of the earnest advocates of the proposed new degree are men who take a greater interest in the mechanical than in the medical side of dentistry; and what is more, they fear, with an exceeding great fear, a severance of the union, even at present not too close, between medicine and surgery. Accordingly when, at the Ipswich meeting, the proposal to petition the Council of the new London University for the institution of a dental degree or degrees came up for discussion, almost all of the bigger men were warmly against it, and the proposal fell to the ground. There is, however, a talk of reviving it, and we may yet have our D.D.S. on this side of the Atlantic. On the whole, however, the tendency here is likely to be towards a wider and deeper study of general

medicine by dental students of the better kind and an increase of the number of men fully qualified to treat the oral cavity and its diseases in relation to, and as a part of, the rest of the closely correlated human organism.

**Difficulty
of
Dental Legislation.**

A question, however, about which there is *no* question, is that of the need of some dental legislation. How much, is another matter. We move here very slowly. It takes a long time to get people to make up their minds that a change is advisable, and then a long time to decide how much change, and another long time to decide to ask help from the authorities, and another to get the authorities to *look into* the matter; and then when at last a bill is brought into Parliament, unless it happens to be taken up as a Government measure, it has to wait for everything else before it gets a chance of being talked about in the House—to say nothing of its being transformed from a bill into an Act. When all these processes, except the last named, have been gone through with regard to one of the crying abuses from which British dentists, and still more, British teeth, have been suffering for many years, we may expect some important reforms; for they are already talked about in dental official circles. At present anyone may practice dentistry, though he must not call himself a dentist; but a “limited liability company,” which may have a nominal capital subscribed by shareholders who are the sisters, cousins, aunts and office boys of the chief director, *may even call itself* a dental company or a “Company of Dentists,” and may, with impunity set up what you would call “Dental Parlors” all over the country, employing one or two hard up qualified men and a host of unqualified assistants, who are paid chiefly by *commission on the dentures they can sell*, and whose chief aim with their patients is to clear their mouths of teeth, carious or sound, that stand in the way of a “complete set.” So far the law has been unable to touch these “Dental Companies,” but at last, owing chiefly to the exertions of the British Dental Association and of the dental representative on the General Medical Council, a bill is before the House of Lords, to amend the companies Acts so as to render it illegal for a limited liability company to practice medicine, surgery, midwifery or dentistry at all.

There is very little doubt that this bill will be passed into law, but half the battle will, even then, not be won. There is the unqualified individual who pulls out teeth without let or hindrance and equally without aseptic or antiseptic precautions and whose preparation for dentistry has been nil; but who does not call himself a dentist, and therefore can endanger the lives of the public and compete unfairly with qualified dentists with impunity. What is wanted to save the public from his clutches, and the

profession from his competition, is a distinct prohibition of the practice of surgery of any kind, for gain by any unlicensed man.

I had an interview not long ago with Mr. W. B. Paterson, Hon. Sec. of the B. T. A., and showed him some articles I had been writing in the *Dentist* on this subject. He fully agreed with me as to the urgency of the matter and thought it probable that the British Dental Association would discuss the matter at the annual meeting, but it did not come up. I may say, however, that the feeling is very strong among those of the leaders of the profession who are not too deeply interested in their private affairs to care about the public aspect of dental questions, as to the need of such a measure as I suggest. But there is no one to "bell the cat"—there is no one to take the initiative, and the public is not well enough informed as to what dentistry means for such a measure to be brought, first by laymen, upon the *tapis*.

This ignorance of the public on affairs dental is a very serious matter; serious for the public itself and serious for the profession. You in America have to do with a much better informed class of patients. Here the public really does not know the difference between an L.D.S. and an advertising quack; between a chemist who pulls out teeth and a highly qualified dentist who has devoted his life to the scientific study of conservative dentistry. What is more, it is only just beginning to awaken to the importance of dentistry at all. It is only within the last few months, that through the disqualification of a large number of recruits in the army and the publicity given by my paper and the lay press, to the work of the School Dentist's Society, that one has heard a great deal about the necessity of looking after the dental condition of school children and the importance of saving teeth.

This subject, however, is now coming well to the fore, many of the boards of guardians all over the country are appointing dentists to look after the teeth of the children in their schools, and some of the better class of schools are doing likewise.

There is a great advance here in regard to the more scientific study of dentistry. The Odontological Society, whose session of 1898-99 closed recently, has done much better work than usual. Among the most important papers read was one by Mr. Hunter on the relation between Infective Dental Diseases and General Diseases, and one on Bacteriology by Mr. Goadby. Dr. J. Leon Williams, the editor-in-chief of the *Dentist*, also read a very important paper on Bacteriology at the Ipswich meeting already referred to, and much work in the future is promised in this direction.

Failures in Bridge Work.

BY DR. F. M. WILLIS, Ithaca, N. Y.

This will undoubtedly appeal to every dentist, because we have all seen failures in bridge work. Some of us have made failures, and to such persons anything said in favor of bridging will be of unusual interest. A great deal has been said and written recently which has been adverse to this branch of dentistry, and perhaps a few words from one who is making bridge work a life study might encourage some disheartened one who is ready to give up such work on account of a few failures.

The dentist who saves teeth is the greatest benefactor to the human race, and next to him is the one who can supply lost teeth by the most useful and comfortable method. Bridge work fills a place in dentistry which can never be taken by anything else. A properly constructed bridge on suitable anchorages is the most useful, comfortable of all artificial substitutes. Why have there been so many failures in this particular line of work? I shall endeavor to point out some of the reasons.

In the first place, the construction of bridges has been attempted by men who have not been properly instructed in this line of work. Until recently the colleges have not given sufficient instruction in bridge work, and so the college graduate has attempted to do something which he did not understand, and the result has been failure. Then, too, a great many men who were already in the profession when bridge work was first introduced, have attempted to do this work, having had but little, if any, instruction, and the natural result has been failure. To be a successful bridge worker requires a thorough knowledge of working metals, intelligent instruction in this particular line of work and a large share of practical experience.

In the second place, failures have resulted from using unhealthy teeth or roots for abutments, or from attaching too large a bridge to too few anchorages. Experience has proven that the most successful bridges have been small ones which were attached to strong, healthy teeth or roots. Large bridges of ten, twelve or fourteen teeth are seldom admissible under any circumstances. Sometimes it is safe to supply an entire upper or lower denture by three or four small bridges, but it is very seldom wise to construct a permanent bridge of more than six or eight teeth in one piece.

Another cause of failure is the lack of knowledge
Proper Construction in the construction of the Richmond crown. For a
of single crown it is sometimes possible to get along
Richmond Crown. without banding the root, but as a support for bridge
 work nothing short of a properly constructed Rich-

mond crown will serve for the anchorage to any of the anterior teeth. A properly constructed Richmond means a healthy, well-filled root, the end of which must be reduced to the inverted cone shape, a delicate, well-fitting band under the gum, a strong platino-iridium post in the root and a snug fitting porcelain, the cutting edge of which is sufficiently protected by gold so that it will not break in mastication. This protection can be obtained in such a way as not to show any gold, and yet absolutely prevent any danger of subsequent breakage from mastication.

Other failures have resulted from ill-fitting
Fitting bands in making the anchorages. The edge of the
Bands. band near or under the gum must fit absolutely. If
 the tooth cannot be trimmed so that the band will fit closely under the gum, then it will be better not to extend the band beyond that portion of the tooth where it does fit closely. It is seldom absolutely necessary that the band on any of the posterior teeth should extend under the gum. In fact, in many cases it is best to stop some distance short of the gum, so that any future decay may be properly cared for. An ill-fitting band that extends under the gum hastens decay rather than prevents it, and in such a case the decay is not likely to be discovered until the anchorage is almost, or entirely destroyed. No artificial crown will prevent decay unless it is an absolute fit and unless the tooth or root can be kept perfectly dry until the crown is cemented.

Another difficulty arises from too much grind-
Danger to ing of teeth with live pulps. A live tooth will always
Living Pulp. last longer than one with a dead pulp, but a live pulp
 has often been destroyed by entirely denuding the
 tooth of enamel, in order that the band might fit well under the gum. A live tooth should be ground as little as possible.

Many times bridge work fails because it is not made strong enough. It has been said that in constructing bicycles, the strain which the machines will be required to stand is carefully computed, and then they are made so that they will withstand five times that strain. The same rule should be adopted in bridge work; make them five times stronger than seems necessary.

The occlusion with the teeth in the opposite jaw has a great deal to do with the success of bridge work. Nothing short of perfection in

this particular will answer. A faulty articulation will often destroy what might otherwise be a permanent and satisfactory piece of work.

Any cavities, or even slight decay, about the anchorages should be carefully filled before the bridge is cemented. It is also a wise safeguard to dry the teeth or roots carefully, coat them with nitrate of silver and then drive off all moisture with a hot air blast before cementing any bridge. If the anchorages are Richmond crowns, it is well that the cementing be done as suggested by Dr. Evans—by coating the posts with chloropercha and trying on, then cement in the usual way. By applying a warm instrument to such a bridge for five minutes the guttapercha will soften and the piece can be removed.

**Work Done
by Others.**

The last reason for so many failures is the greatest reason of all. Dentists who are not skilful enough to construct their own bridges will take an impression of the case and send a plaster model to some of the numerous laboratories where bridges are constructed with neatness and despatch, and expect the result to be satisfactory.

Bridge work done in this way will rarely be successful, and such procedure cannot be too strongly condemned. No man ought to attempt bridge work who cannot do the work himself, and begin by fitting the bands to the anchorages in the mouth. Bands fitted to plaster models may succeed in some cases, but no method is so satisfactory as to fit the bands to the teeth or roots in the mouth.

Patients will often ask how long bridge work will last. I used to reply, "It will last a lifetime;" now I reply, "It will probably last several years." I find by experience that the latter statement is safer. A bridge which gives the patient good service for five, eight or ten years should not be considered a failure. In fact, I find many patients who are willing to endure the discomfort and expense of having bridge work done, if they can be assured that it will last five years.

In skilful and conscientious hands, bridge work is not a failure. On the other hand, a great many patients who are wearing clean, strong, useful bridges are willing to testify to the fact that bridge work is a success.



INCIDENTS OF OFFICE PRACTICE

Alveolar Hemorrhage.

By DR. W. A. WHITE, Phelps, N. Y.

In the May and June issues of *ITEMS OF INTEREST*, I noticed records of cases of alveolar hemorrhage; one by Dr. H. H. Benjamin, of Batavia, N. Y., and one by Dr. Charles P. Chupein, of Philadelphia, Pa. Having recently had an unpleasant experience of this kind, and believing it worthy of notice, I send you the facts.

The patient being a gentleman, a prominent business man of North Adams, Mass., aged sixty-one years, during the past two years had been in very feeble health, attributed to a complication of troubles, principally an aggravated liver disease. He had received treatment by several noted physicians and at various sanitariums, but seemed to be gradually failing. Some six weeks ago he placed himself for treatment under the care of Dr. P——, of this place, and was seemingly improving daily. He wore a full upper denture, and several years ago lost all his teeth back of the second bicuspid on each side of the lower jaw. All of the remaining teeth were broken off to the gum line excepting the cuspid and first bicuspid on the left side, and the second bicuspid on the right side, and these were badly decayed. From these he suffered much, and after several appeals to his attending physician, an appointment was made to have them extracted. At 9.30 A. M., May 26, Mr. D., in company with his wife and Dr. P. came to my office. Chloroform was administered, and the teeth above mentioned were extracted. Complete anesthesia was produced, and the operation was finished within half an hour, the anesthetic being administered without any unpleasant symptoms; only the normal bleeding followed. At 10.15 they left the office, the patient apparently being the jolliest one of the three. After arriving at his room, Mr. D. lay down to rest, and dropped off to sleep; at 1 P. M. he had a severe chill, when the doctor was called, and soon gave him relief. Shortly after the physician had left and the rigor had ceased, the hemorrhage began. He had been bleeding profusely for an hour when I was

called at 2 P. M., when I found the patient in so weakened a condition that from the first it seemed like a hopeless case. I packed the cavities with pledgets of cotton saturated with phenol sodique and tannin, which was the only hemostatic used. By 3 P. M. the hemorrhage had entirely ceased, and save the exhausted condition of the patient the indications pointed to recovery. So fearful was he that the hemorrhage would return, at his request I remained with him all night. He rested well, and was awakened occasionally to be given his remedies, together with a little beef broth as nourishment. The heart action with the radial pulse was noted at intervals, and was strong, considering the shock the patient had suffered. His condition without change remained the same until 5.30 Saturday A. M., when he grew very restless, and I was hardly able to detect the radial pulse, while the heart gave evidence of weakening. His physician was called, who at once recognized his condition. Dr. H. was summoned in consultation. Both physicians used every means to save the patient, but he died at 12.30, May 27th.

While I am convinced that the debilitated condition of the man was not equal to the operation, I am strongly of the opinion that, had either his physician or myself been called when the hemorrhage first commenced, the result might have been different. It was estimated that he had lost three quarts of blood before aid was summoned.

Alveolar Hemorrhage.

By C. T. HEWES, D.D.S., Quincy, Ill.

Having read the articles on "Alveolar Hemorrhage" in the May and June ITEMS OF INTEREST, I wish to report a case that came under my observation. My case was similar to Dr. Benjamin's, reported in the May number.

In the fall of 1887, I extracted the upper teeth for a maiden lady preparatory to a plate. There was nothing unusual in the force used. The extraction was done in the forenoon. In the afternoon, about three o'clock they reported to me that the lady was suffering from severe hemorrhage. As she lived only across the street from my office, I went with them to her home. Thinking that the bleeding was from a few sockets only, I packed them with cotton and tannic acid. The hemorrhage did not subside. The family were very much alarmed, and asked me if they could send for their family physician. I replied, certainly, but that I should like to be called when he arrived.

In about an hour's time Dr. C. came, and I was notified. Dr. C. was using medicine, and the mouth was so full of clotted blood that the lady could hardly swallow. An attempt of thirty or forty minutes failed to arrest the hemorrhage. The physician then turned the patient over to me. Having thoroughly cleansed the mouth, I took a wax impression of the upper jaw. I made a plaster cast and formed a trial plate of gutta percha. Then a roll of gutta percha, quite soft, was placed on the trial plate directly over the sockets. I placed the trial plate with the softened gutta percha rim in her mouth, and had her bite into it. After hardening the gutta percha with cold water I bandaged the jaws. Within a few minutes the bleeding ceased, and did not recur when my compress was removed the next day.

In twenty years' practice this is the only case of hemorrhage I have had where all the teeth were extracted.

My only claim for originality is in the use of a compress for the whole upper jaw.

Reflex Dental Pain.

By S. F. HEVERLY, D.D.S., Cascade, Iowa.

Miss L., teacher, aged about twenty-three, came to my office Saturday evening, June 10, complaining of severe pain in four upper teeth, viz., left lateral incisor, cuspid, and first and second bicuspid, which, she said, had appeared about two days previously, and had been so severe as to not only keep her awake at night, but to compel her to cry from the pain.

I immediately suspected initial stages of alveolar abscess, and sought the history of the fillings which she had in incisor and both bicuspid. She admitted that the incisor had been very sensitive when filled several years before; did not remember that any of them had had root fillings. All four felt longer than usual, and were so sore that she could not use them. On percussion I found that they responded to the test for pericementitis—but all were equally sensitive—the cuspid which was apparently sound, was as sore as any.

I was not satisfied that I knew the exact cause, so I painted the gums thoroughly with creosote and iodine, prescribed phenacetine and morphine sulphate in doses of five grains of the former to one-half grain of the latter to be taken every three hours until better, and sent her home with the request to call next morning. Sunday morning she appeared and re-

ported no relief; had not been able to sleep; pain continued as before. I made a thorough examination, but could discover no particular change, but supposed the chief offender to be the incisor which had two gold fillings—mesial and distal—so I proceeded to open into the pulp chamber. But when I had passed the enamel, the tooth was so sensitive that I could go no further.

I stopped and directed my attention to a canker sore on the mucous membrane of the lip, just opposite the cuspid tooth, which was very angry looking and had caused the lip to swell sufficiently to be noticeable. I cauterized it thoroughly with nitric acid, full strength, sealed opening I had made in lateral, and sent her away with instructions to call next morning.

Monday morning she appeared and reported that the pain had continued all day and night until about two o'clock a. m., then had ceased and she had been free from pain ever since, but the bicuspid were still sore. Examination showed the swelling gone and sore much reduced. I gave it another treatment of H N O_3 , applied capsicum pad over region of roots of bicuspid and dismissed patient with instructions to call after school, if the pain continued. She did not return, and I concluded that the canker sore was the cause of all the trouble; that the pain in teeth was reflex pain, and that the nitric acid had produced a cure.

Anomaly of Second Dentition.

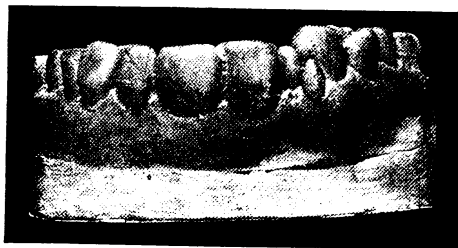
By T. C. TRIGGER, St. Thomas, Canada.

A few weeks ago a young lady, over twenty years of age, consulted me in reference to the condition of her teeth. Immediate examination presented an anomaly. Two conoidal supernumerary teeth made their appearance in the left lateral incisor position. On making inquiry into the history of the case, the patient reported that they had erupted soon after the second teeth. It must be stated here that both are distinctly supernumerary.

It was not these teeth which gave the young lady the most anxiety, but rather an amber color of the left central incisor. The labial surface was somewhat rough with transverse ridges and dark spots, showing in this tooth that some abnormality existed during its formation or eruption.

Owing to a good condition of the tooth, I was deterred from making an excision of the crown, and replacing by an artificial one. By drilling

away the most stained part I found that it was stained throughout. The cavities were filled with gold, and finally the smaller supernumerary was extracted, showing conclusively that it was entirely separate and a well formed root of considerable length.



The other remains in the dental arch to take the place of the intended lateral incisor. The appearance of the surrounding tissues lead one to believe it was not extracted and will never erupt, as no abnormal anatomical conditions exist.

The accompanying cut helps to express and appreciate the detail.

Bird Shot in a Tooth.

By E. E. SLATON, Eclectic, Ala.

Mr. K., a blind man, came to my office on April 21 to have an upper right wisdom tooth extracted. After extracting the tooth, I discovered what seemed to me to be an amalgam filling on the posterior surface. On inquiry, I learned that it was a bird shot lodged centrally in the neck of the tooth. I was somewhat curious to know how it had occurred, and this is his statement:



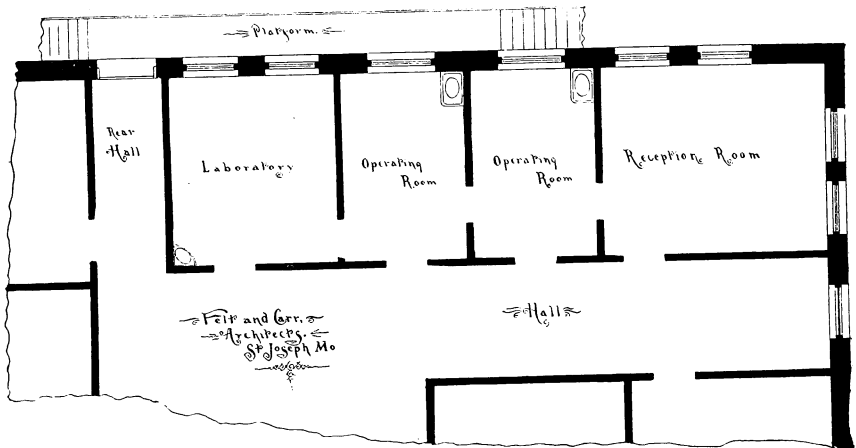
On Feb. 8, 1879, he received the contents of a shotgun at close range—six inches—in the face, the load entering on the left side of the nose and depositing shot in the superior maxillary and muscles of cheeks, many of which he carries at this time. At the time of the accident he was only thirteen years old, therefore the shot entered the tooth before its eruption. At the time of extracting he was thirty-three years of age, making twenty years from time of accident to time of extraction. He further states that the tooth was not erupted until six years ago, at the age of twenty-seven, which gives the tooth fourteen years in the jaw unerupted.

The wound produced the complete loss of eyesight, as well as the loss of the left central, lateral and cuspid teeth.

Office and Laboratory

Office and Laboratory of Dr. F. P. Cronkhite, St. Joseph, Mo.

Judging from the many expressions of appreciation heard there has been much of interest to readers of ITEMS OF INTEREST in the pictures shown from time to time of office interiors. However, if the pictures do not awaken a disposition to improve our surroundings, if they do not suggest changes by which our offices will be made more attractive (using



perhaps what we may already have), if there is nothing of practical benefit to be derived from these pictures, I should deem their publication a waste of valuable space. In my experience I believe I have utilized more ideas not original with myself than otherwise, consequently I feel obligated to the gentlemen who have contributed these articles. With the hope that some one may get a suggestion, I forward views of my office taken from positions best calculated to show the working facilities.

While I do not believe an expensive equipment of instruments in an elaborately furnished suite of rooms necessarily makes a successful dentist, still the best appliances procurable do enhance the value of our service by contributing to the comfort and convenience of our patrons. In furnish-

ing an office we should do it thoughtfully and not without regard to the harmony of things. One should be guided largely in the selection of his furniture, etc., by the location of the office and the kind of patronage he may have to draw from. It is a waste of money, considered from a financial standpoint, to put expensive rugs on the floors and distribute rare bric-a-brac around rooms intended for the reception of people with no appreciation of such things. Such an office would be in poor taste in a community composed largely of laboring people. An office may be furnished in such a manner as not to attract the attention of any particular class of



FIG. 1.

patients. This is the best proof of good taste. While I do not believe in "aristocratic machine shops," as my friend Dr. Root expresses it, I think we should have every convenience that will facilitate our work, but have all appliances out of view when it is possible. For an office where equal attention is given to operative and prosthetic work, and the floor space is available, the plan herewith shown is very convenient.

In a strictly operative practice so much room is hardly necessary. The floors throughout are of oak, each alternate board being quarter-sawn, finished with a special kind of varnish which makes a very hard and polished surface.

Fig. 1 is from a photograph of the reception room. This room has an east and north exposure, the others having a north light only, which, by the way, is unquestionably the best light for operating.

Fig. 2 is used as an examination and consultation room. Such a room is almost a necessity where one allows interruptions while engaged at the chair. Here anæsthetics are administered, teeth treated, and occasionally short operations are performed while applying cataphoresis.

In Fig. 3, which is the operating room proper, the illustration shows so plainly what the room contains that it seems almost superfluous to comment, but I wish to call attention to a few conveniences which may prove useful to some. A good artificial light is always appreciated at times. I have experimented with many, but for an economical, efficient light, six



FIG. 2.

incandescent lamps in a cluster with a sixteen-inch aluminum shade has proved most satisfactory. To the left of the operating chair is shown a gas burner supporting a small porcelain kettle containing water, under which is kept burning a minute jet of gas, which furnishes warm water at all times. Back of the steam radiator, on the window casing, will be noticed a cut-off to which is attached a small silk-covered rubber tube running along the under frame of the instrument bracket terminating in a hand-piece. This instrument has become almost a necessity to those doing crown and bridge work. Through it I get air, heated or not, from a slight

pressure up to thirty-five pounds per square inch. I find it very useful while cleaning enamel from roots preparatory to banding them. Air forced under the gum margin crowds it back and pushes the exudating mucous and blood out of view, revealing any remaining enamel. I use the air in connection with a special handpiece for spraying pyorrhoea pockets.



FIG 3.

In drying the ends of teeth before setting crowns, and for root canal work it is almost invaluable. Its use in the laboratory will be mentioned later on. The electric engine shown in the illustration is the Mason type. The instrument cabinet on the right is one made after a plan furnished by myself. It is of quarter-sawed oak, very plain in construction, but highly

finished. It is built with an L which furnishes abundant shelf room for medicine bottles, etc. The end exposed is finished with a plate glass mirror. The drawers are lined with fine felt cloth.

Fig. 4 is from a photograph of a corner in the laboratory showing a part of two Ransom & Randolph work benches, in which I have found nothing wanting. They are strongly and neatly made and not expensive. The motor, which is used to run both the dental engine and the lathe, is a late pattern made by the Holtzer-Cabot Electric Co., of Boston. After



FIG. 4.

much expensive experimentation I find the combination shown to be the most satisfactory yet tried. I regret that the picture does not show all of the gold working bench, for upon that end not photographed stands a small furnace made by the Buffalo Dental Mfg. Co., intended exclusively for refining small quantities of gold scrap. Every dentist should know how to work up gold scraps. It is a great saving. With the compressed air and this little furnace one can utilize every piece of gold that can be refined by the dry method. For this purpose I have found where the alloy simply lacks toughness that ammonia chloride dusted upon the molten metal produces the desired result. I have made a small frame of platinum wire to

fit the aforesaid furnace. It can be used in connection with the compressed air for heating and soldering bridge work. The Knapp blowpipe has become a necessary adjustment to porcelain work. The 25 per cent platinum solder that porcelain workers now use can be flowed over so quickly and with so little trouble that the small cost of the blowpipe and nitrous oxide

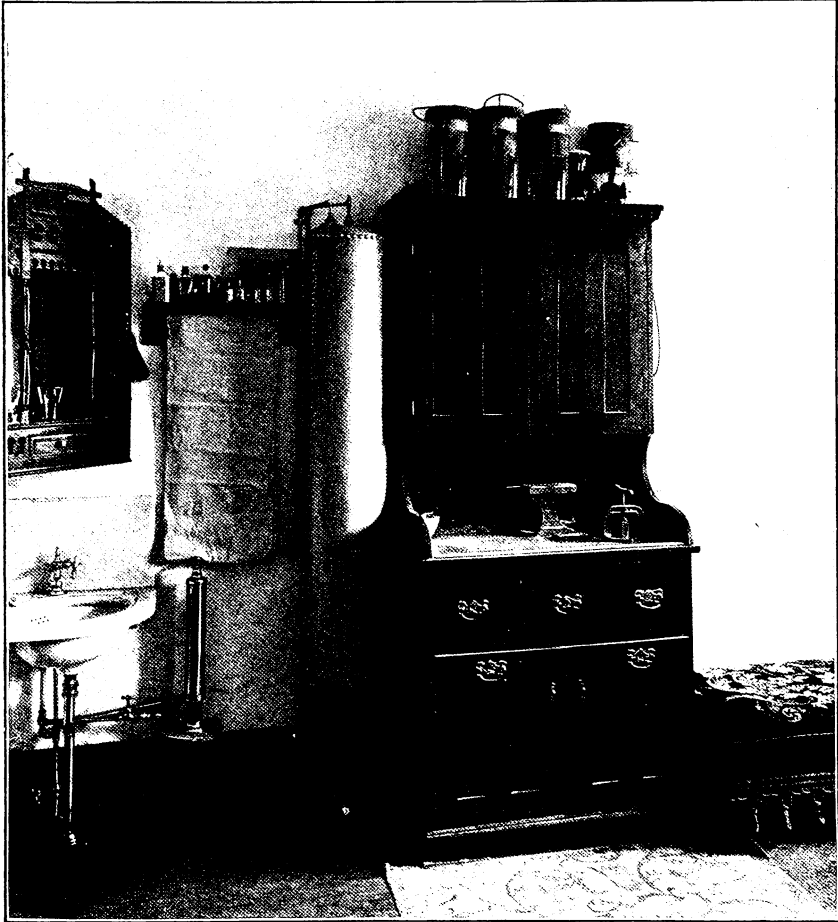


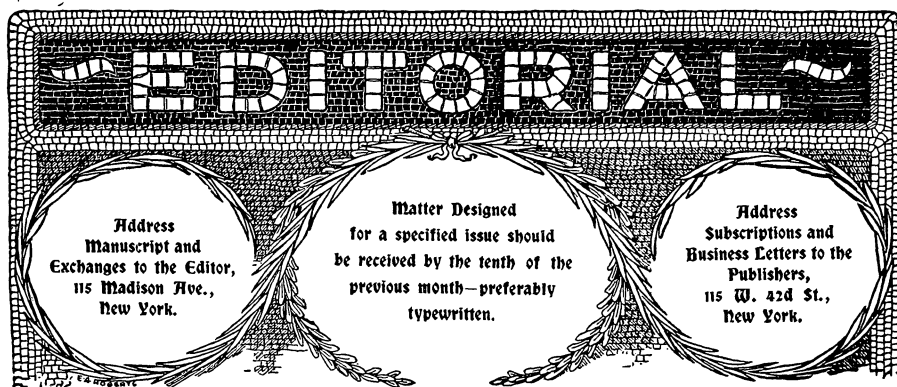
FIG. 5.

used is not to be considered. I am now using for both inlay and crown work the Consolidated Co.'s high fusing body, fusing it in Custer's electric oven. This body fuses in from two and a quarter to three minutes after a pellet of gold melts. It is constant in this respect, and can be relied

upon to match in color the corresponding number on the shade ring with great uniformity.

In Fig. 5 is shown the air pump (which is called the Cleveland Champion) and reservoir, which furnishes an abundant supply of air at thirty-five pounds pressure. This combination can be put in any office where water power is available, at a cost of from twenty-five to fifty dollars, and will soon prove itself not a luxury but a necessity. I would suggest that where considerable air is to be used, two reservoirs be put in, as it is not high pressure we need, but quantity of air. The plaster cabinet shown in this view is a very useful arrangement, as it is large enough to contain everything not in use on the other benches. On top of the cabinet are placed six "Excello" batteries, made by the Burnham Electrical Co., of Boston. I use them for every purpose where a primary battery can be used. They are efficient and all that the manufacturers claim for them. In the upper cupboard one side is used exclusively for models of orthodontia cases, and is arranged especially for their reception in a manner to make any one of them easily accessible. The other side of the cupboard is used for impression trays, varnish bottles, articulators, medicine supplies, etc. The working top is covered with heavy zinc over asbestos, and is used for metal as well as plaster work. Two drawers twelve inches deep will be seen underneath. The larger one for waste material, and the smaller one for plaster and investment compound. The narrow drawer is used for flasks, wrenches, hammers, swedging material and heavy tools. The lower cupboard contains the batteries and jars to be used in the "wet method" of refining gold. One side of this cupboard furnishes a convenient place for dust cloths and other things that lend an untidy appearance to an office if exposed to view.

In conclusion I wish to mention the use one may make of a good-sized laboratory. The impressions we make upon our patrons are powerful factors in our professional lives, and it behooves us to take advantage of this fact, making the impression favorable whenever possible. We should never pass our leisure time in the reception room. Have a good sized table in the laboratory, two or three easy chairs and a lounge, if there is room. Here you may pass many a recreative hour with your journals and books.



The Wisconsin Decision.

Those who have carefully read our last issue must have been convinced that the policy of this magazine is to view all dental questions without favor or favoritism. In the past, at times, because we have expressed the view that the Examiners rather than the Faculties, were in the right, some have thought that *ITEMS OF INTEREST* was an "organ" of the Examiners Association. Nothing could be farther from the truth. In our July number we gave place to an article accusing the Illinois Board of Examiners of irregular practices. This does not mean, however, that we assume all the charges to be true. Our publication of the matter is rather in the nature of the finding of an indictment by a Grand Jury, an act which does not assert that there is guilt, but that there is evidence against the accused which in his own interest must be refuted before he can be counted innocent. The rumors from Illinois are of such a nature that the good name of dentistry demands an investigation, and we trust that after the Niagara meetings they will be hushed finally.

We come now to a discussion of the so-called Wisconsin decision, in a dispassionate, impartial manner, in the hope of determining how much or how little it affects the dental laws of the whole country. In certain quarters the decision has been welcomed and the conclusion advanced that the Judge's opinion negatively settles the question whether or not an Examining Board may determine as to the status and reputability of the colleges. But does it?

It seems safe to assert that it does not. All that was before the Court for consideration was the powers of the *Wisconsin* Board, as defined by a *Wisconsin* statute, and a close study of the decision shows that all that is decided (or claimed to be decided) is that the powers of this particular board are not as great as the Board claimed. This opinion is not even final in *Wisconsin*, the case as yet not having been tried. The Judge's opinion, however, seems so sound that there is little reason to believe that it would be overturned by a higher court, although it is evident that he must have had a very foggy notion of certain phases of the questions at issue, for he tells us that the Board in effect demanded that to be counted reputable, colleges must teach Latin and Mathematics, and a *reductio ad absurdum* argument declares that if this power were granted the Board might in the future demand a course in Chinese or Hindoo.

In considering the bearing of this decision upon boards in other states we must study the statute, and before it could be claimed that the opinion could serve as a legal precedent, it would be needful to show a likeness between this particular statute and those of other states. It will be instructive to do this, and for comparison we select the law of California; first, because of its seeming similarity; and, second, because of the quite opposite decision of the California Supreme Court, a decision which it seems to have been convenient for some to forget.

We give the two laws, and italicize the lines which make them so different that opposite judicial decisions have resulted.

“Any person who may desire such a license, may
Wisconsin. appear before the State Board of Dental Examiners
 at any regular meeting and be examined with reference to his knowledge and skill in dental surgery; if such examination shall be satisfactory the Board shall issue a license to practice dentistry; provided that the Board *shall license without examination*, upon the payment of one dollar, *any regular graduate of an incorporated and reputable dental college* which requires that the candidate for graduation shall attend two full courses of lectures of five months each, the last of which courses shall be attended in the college which issues the diploma.”

California. "Any and all persons who shall so desire may appear before said Board at any of its regular meetings, and be examined with reference to their knowledge and skill in dental surgery, and if the examinations of any such person or persons shall prove satisfactory to said Board, the Board of Examiners shall issue to such persons as they shall find to possess the requisite qualifications, a certificate to that effect in accordance with the provisions of this act. Said Board shall also indorse as satisfactory diplomas from any reputable dental college, *when satisfied of the character of such institution* upon the holder furnishing evidence *satisfactory to the Board* of his or her right to the same, and shall issue certificates to that effect within ten days after."

In the Wisconsin case the Board claimed that the legislature had clothed them with power to decide as to the reputability of the colleges. The whole question turned on this single point, and the Judge found that the legislature gave the Board no such power. Nor does it seem to require much legal acumen to arrive at the same view. The language of the statute seems simple. It directs the Board to license graduates of reputable schools. This is *mandatory*. Should the Board reject a graduate, claiming that his school lacked reputability, and should the rejected candidate take issue with the Board, the reputability of the school would become a question of fact upon which the court could rightfully hear evidence; this because there is nothing in the statute of *Wisconsin* which authorizes the Board to decide what is or is not reputable. The whole argument of the Judge in his opinion is upon this point, and it was because, in his view, the reputability of the Chicago College was a long established and recognized fact that he decided against the Board. It is worthy of note that the statute does give the Board certain supervisory powers. The Judge declares that the Board could not direct the College to demand certain educational standards of admission, and he is right because the statute is silent on this point. But he would certainly have decided that the Board could demand that the college should have "two full courses of five months each," because the statute specifically empowers the Board to do this.

Thus we find that the Wisconsin decision does not establish a prin-

ciple of equity, but merely a point of statute law. The Board claimed certain discretionary powers, and the Judge decides that the statute does not bequeath such powers. That is absolutely all that the Wisconsin decision decides, and the effect of the decision is limited to Wisconsin, and can only effect such states as have the same language in their statutes.

The language of the California law is very similar, but in regard to the reputability of colleges we find here the significant phrase, "*when satisfied of the character of such institution.*" Thus the California Board is made the final arbiter of the reputability of colleges sending candidates to it for license, and this power being granted by statute, the Supreme Court has decided that the court has no supervision over the Board on this point. Throughout his opinion the California Judge repeatedly quotes the statute to maintain his view that everything must be *satisfactory* to the Board. Had the framers of the Wisconsin law inserted such a saving clause there is no doubt that the same Judge who decided against them would have decided in their favor.

Apparently (the decision of the Supreme Court of California sustaining this view), a state may enact police regulations defining who shall or who shall not practice a profession within its borders, and as a part of such requirement it may demand not alone certain educational attainments determinable by examination, but may go further and relieve its examiners of some of their labor by exacting that licentiates must come from colleges requiring specified knowledge as a preliminary to matriculation. Where such provision does not appear in the statute, of course the Board cannot exercise any such powers. As the Wisconsin Board appear to have exceeded their law they were "thrown out of court."





**Method of
Polishing
Cavity Margins.**

The chief attraction at several of the Summer Meetings will be papers and clinics descriptive of methods of inserting porcelain fillings. One noticeable feature of this art is the extreme care needed in the preparation of cavity margins in order to obtain even fair results. The best fillings, those showing invisible or scarcely visible joints, are only procurable where the margins are well polished. The following communication from Dr. Wm. Cass Graystone, of Scarborough, England, is therefore most timely.

"DEAR SIR: A short time ago you were good enough to publish a little note of mine on 'The Preparation of Enamel Margins.' Since then I have made experiments on extracted teeth and have discovered a simple, easy and efficient method of producing smooth borders. Take an ordinary fine cut plug finishing bur of suitable size; dip it in water and then in coarse carborundum powder; use it in the usual way, dipping it in the water and then in the carborundum powder as often as necessary. I use half worn out burs. Prepare margins in this

Questions will be answered in this department, provided the answers would be of general interest. After publication our readers are cordially invited to make further reply, criticism or comment.

way and examine them with a magnifying glass. This is a faster and better method than using diamond burs. It is so simple that I should not be surprised to hear that it has been practiced by others; as, however, I have no knowledge of this, and it is far in advance of anything I have used, I think it may be worth while to put it on record."

**Professional
Encouragement
of Quackery.**

The letter printed below is forwarded by one of our esteemed correspondents. It speaks for itself in the strong language of fraternal ethics. There is little doubt that the vender of "methods of practice" would thrive less if our professional brethren were less willing to pay out good money for their pretended short roads to success.

"Recently the dentists of our cities have been interviewed by an agent dispensing his wit something after the following fashion:

"GENTLEMEN—(to his select audience of reputable practitioners)—I have to dispose of some excellent things which you do not understand. I do not receive your patronage as a favor, as it would be no more trouble to sell to *one* regardless of professional ethics—an advertiser—than to sell to you. However, if you want my methods—(methods in prosthetic dentistry were his wares)—for ten dollars each, they are yours."

"Then he produced letters galore from men standing high professionally and ethically, endorsing his scheme, and many arguments also attested his success."

"Now, Mr. Editor, to you whose metal I believe to be untarnished by policy, fear or favor, I come for an opinion concerning the course of these dentists who frame and exemplify our ethical laws. Is their action not tantamount to a return to the day of padlocked laboratories, or worse, because the rays of professional co-operation can only illumine our prosthetic tables through the open laboratory door; and these did not shine in the olden time? Or is the once obsolete opinion to be revived that secrecy is consonant with the dignity of our profession, or amended so as to enhance this dignity?"

"Why, Mr. Editor, a dentist's conscience should pinch him till his face would reflect at least some of the meanness he ought to feel at refusing a brother dentist knowledge benefiting his brother, his clientele and their profession. Beneficent action reflects beneficence, blessing 'him that gives and him that takes.'"

One meditating with pride on the thought that our profession is dignified with as noble aspirations, as magnanimous sentiments, and as ingenuous examples of professional ethics as is that of medicine, theology

or law, becomes disconcerted at having to halt at the laboratory door of one of the fraternity lest unwittingly he should discover one of these guarded and secret \$10.00 methods.

"I am satisfied that many of our good men invested their money without a thought of their action being unprofessional, yet it seems to belong to the category of employing secret nostrums and advertised methods."

**Dentists
Needed
in the Army.**

As a contribution to the subject of Dentists in the Army, Dr. Joseph A. Noll, D.D.S., writes as follows:

"Two cases have been under my notice from recently discharged volunteers, that I think would be of interest.

"Mr. B. describes his experience thus: 'I suffered as long as I could before I went to the company doctor and told him I must have my tooth out. He made me lie full length on the ground, and then went for me. I don't know what he tried to pull it out with, but I have the roots yet, though they have never ached since.'

"Mr. C.'s case differs a little from the above. He said: 'I had a most awful toothache. I went to the doctor to get something to ease it, and what do you suppose he did? He smashed a quinine pill and put a piece of it in the hole in my tooth. It made it ache worse than ever. I finally told him I must have it out, and he gave me a dollar to go and have it pulled. I went up to the town and found a dentist, and he tried to stop the aching, but finally took it out.'

These cases occurred while the boys were in camp at Tampa."

**Painless
Pulp
Removal.**

Dr. C. R. Wetherel, of Estherville, Iowa, writes thus of the use of eucaine for pulp removal:

"The method for extirpating fresh pulps, mentioned in May issue of *ITEMS*, page 366, has been, with me, a *complete* success, and I can assure you it is a boon in a country practice. I had no spunk, but used absorbent cotton; operation, however, just as successful, and results astonishing."

**Correcting
Irregularity
by Crowning.**

Dr. J. H. Burton, of New Bern, N. C., asks the following question:

"Under what conditions would a dentist be justifiable in excising, for a lady twenty-two years old, the two lateral incisors when outside the line, somewhat prominent and lapping on the two central incisors less than one-fourth the width of the latter teeth, both being perfectly sound and in a state of vitality, all the other teeth well preserved; and adjusting instead two Logan crowns?"

The answer to this is very simple. Under no circumstances would such a course be other than malpractice.

**Stuttering
Cured.**

Dr. G. Winter, of Canton, Kan., reports a complete cure of stuttering in the case of a man, who had suffered from childhood. The happy result was effected after the insertion of a full upper and under

set of teeth.



**Information
Wanted.**

In making up our report of contributions to the Army Medical Museum we find a specimen (see Fig.) of a tooth, the apex of which can be removed as a stopper from a bottle. Will the donor kindly send his name again, with history of the case, as we have mislaid his communication.





A Manual of Comparative Dental Anatomy for Dental Students.

**Prepared by Request of the National Association of Dental Faculties and
Adopted as a Text-Book for Colleges, August 27, 1897.**

By ALTON HOWARD THOMPSON, D. D. S., Topeka, Kansas. Professor
of Dental Anatomy, Human and Comparative, in the Kansas
City Dental College, Kansas City, Mo.

THE S. S. WHITE DENTAL MFG. CO., Philadelphia, 1899.

It is only a few months since I had occasion to say a few words of favorable comment on a work treating on this subject by Charles S. Tomes. At the time I felt very strongly that the portion of his book treating of Comparative Dental Anatomy was worthy of a separate publication and should virtually be the stepping stone to the study of human dental anatomy. It is consequently a source of great pleasure to see my views executed in the satisfactory manner in which the above little volume treats this important subject of education. All that I said at the time in commendation of the work of Tomes, can be repeated now with added emphasis. There is certainly no one in our entire country who is more fitted both by nature, choice of work and education to grapple with the intricacies of this vast theme than Dr. Thompson. How has he performed his work? He has not attempted to lay before his readers an exhaustive treatise entering into the minute details of all the various divisions of the different species. He has produced for the first-year student a text-book, small in size, of only one hundred and seventy-six pages, which contains, however, the pith of his subject. The book might truly be called a primer of Comparative Dental Anatomy. In saying this, I feel that no higher compliment could be extended, for it is difficult to conceive of a student failing to clearly grasp everything that has been portrayed with such conciseness and directness of speech.

In his preface, the author takes occasion to congratulate the profession that it is no longer necessary to apologize for the intrusion of a work

on Comparative Dental Anatomy, but that the value of this branch of our professional education is now generally recognized. Alas! We fear he has not had a true insight into the curriculum of the majority of our colleges. Here comes into effect the difference between pretension and reality. It is quite true that no one questions the importance of the study, but it does not follow that it is quite generally taught. With this book laid before the teachers at the request of the National Association of Dental Faculties, it is to be sincerely hoped that it will become the means of making the study of Comparative Dental Anatomy a reality in every institution represented in the National Association of Dental Faculties. The work of the publishers is up to the usual high standard of the late publications of the S. S. White Dental Mfg. Co. M. L. R.

Chemistry and Metallurgy Applied to Dentistry.

By VERNON J. HALL, Ph. D. Professor of Chemistry and Director
of the Chemical Laboratories in the Dental School and in
the Woman's Medical School of Northwestern
University.

Published by THE TECHNICAL PRESS, at Evanston, Illinois.
MDCCCXCVIII.

This book is offered to the dental student, not as an exhaustive treatise on Chemistry and Metallurgy, but rather as an outline of information covering a field commensurate with the time which is generally given to the study of this subject in our colleges. It is presented in a very attractive and methodical style with good illustrations. The book is divided into two parts, the first part treating of the metals, descriptive details, qualitative chemical analysis. This is practically a condensation of more comprehensive works. Part second treats of chemical technology applied to dentistry. In this portion is comprised the original work of the author and considerable of practical interest to the up-to-date practitioner, making the book a valuable one of reference. The author could have enlarged on the details of this part of the book with very much benefit. Perhaps the most interesting portion of the work is the space devoted to the question of amalgams, and some very interesting features are brought out. He calls especial attention to the lack of stability in alloys, a property called liquation.

I quote the following interesting paragraph on this subject: "The author has had occasion to make some experiments with alloys of silver and tin such as are commonly employed with mercury in filling teeth, and he finds that by keeping a perfectly homogeneous alloy of these metals in a molten state for one-half hour in a deep graphite mould a decided liquation results. This is shown by the fact that a large proportion of the silver employed is found at the bottom of the ingot." In this style the amalgam question is thoroughly discussed and the reasons for the uncertainty of results in amalgam fillings clearly demonstrated. It would be necessary to take up page after page of this part of the book to show all the interesting data pertinent to the unscientific methods pursued in inserting amalgam fillings. Another interesting chapter is the one relating to Dental Cements. "Out of fifteen prominent cements analyzed by the author, but two were found to contain only traces, while the remainder contained from .04 to .1 per cent. of arsenous oxide." What an important bearing such a demonstration as this must have upon the use of oxyphosphate of zinc. Considerable attention is also given to the methods of analyzing saliva and urine.

M. L. R.

Methods of Filling Teeth.

An Exposition of Practical Methods Which Will Enable the Student and Practitioner of Dentistry Successfully to Prepare and Fill All Cavities in Human Teeth.

BY RODRIGUES OTTOLENGUI, M.D.S.

Second Edition. With Two Hundred and Seventy-Three Illustrations. Giving Exact Representations of all Classes of Cavities and their Management.

Philadelphia :
The S. S. White Dental Mfg. Co., 1899.

London :
Claudius Ash & Sons, Limited.

Before me is the second edition of Dr. Ottolengui's "Methods of Filling Teeth." It appears nearly seven years after the first one, and contains about nineteen pages more of printed matter.

The book is written by a man of strong individuality, and as he describes his own method of filling teeth, it naturally presents to the critical reader numerous faults besides its many excellent qualities.

In the chapter on "General Principles Involved in the Preparation of Cavities," the author gives due prominence to the late researches of Dr. Leon Williams, of which he gives a precise resumé.

In describing the removal of decay, the author mentions the fact that numerous authorities speak of frequently occurring cases where it is best *not* to remove all the decayed dentine. He calls this "a grave error," admitting, however, that in "rare exceptions" it may have to be done. It is these rare exceptions which other men had in view when they advocated such method, thoroughly justified under exceptional circumstances.

Among the clamps, the author fails to mention the Ivory set—one of the very best the profession has at command. He also fails to mention the Woodward and Hatch cervical clamps, both superior to any mentioned on page 40.

I am surprised that the author has not learned to appreciate the use of the napkin upon the upper jaw, and I refer him to Dr. Abbott's description of that subject.

The author's objection to steel separators is greatly justified, but to condemn their use so emphatically and recommend the old fashioned method of separating for practically all instances sounds somewhat narrow and antiquated. Thousands of teeth are daily filled, not only by the most skilful, but by the average operator, with the use of the separator, without any lasting detriment to the teeth operated upon. The fact that damage is easily done with an instrument should not induce an author to condemn its use, but to make every effort to teach his readers how to use it properly.

The author's view of the use of matrices largely coincides with mine, but there is a way of using them without the contact of metal and tooth substance being so close that the thorough packing of gold against the margins becomes difficult, and often impossible, which he has failed to mention.

The chapter on "Porcelain Fillings" has been very much enlarged, and is in accord with the latest methods.

Among the plastic filling materials I miss the mention of sulphate of zinc, one of the most valuable materials for certain cases.

I must express my greatest surprise that the author has never learned to appreciate the use of soft gold. The answer to his question, "Is there any advantage in non-cohesive gold which is sufficiently important to make it deserve a place in office practice?" which I would give is, "Yes! An enormous time-saving, together with an adaptability of the gold to the margins difficult of access, hardly ever to be obtained by cohesive gold only." I feel very much like elaborating on this subject, but I am not writing this criticism to advocate my own method.

The author himself says: "The supreme demand upon any filling is that it shall present a durable surface and be in close contact with all its walls. It could be hollow in the centre and serve as well."

No gold in large compound approximal cavities of posterior teeth will be in better contact with the cervical, a large part of the buccal and the lingual walls, than soft gold, which, if completed with cohesive upon the occlusal surface, makes the most ideal gold filling under the circumstances, if we add tin and gold for the cervical portion of the filling, which also does not find grace with the author.

I am surprised that such an acute thinker and observer as Dr. Ottolengui should cite a case of failure of a tin and gold filling after one year as an argument against its value. No filling, if properly introduced, can fail in one year, if the circumstances are normal and the work has been done thoroughly.

I am sorry the author has never learned the value of a trained assistant at the chair. He has missed very much.

The chapter on "Contour Fillings" is one of the most excellent in the book. The only exception I take is the frequent use of screws, which the author recommends, which also applies to the filling of abraded surfaces.

The chapter on "Green Stain" is much elaborated upon.

The chapter on the "Treatment of Root Canals" is not as comprehensive as one could wish, and the Callahan method of using sulphuric acid for both diagnostic and chemical purposes has been omitted.

If I have been hypercritical, it is the fault of Dr. Ottolengui, who requested me to be thorough in finding faults.

The book as a whole deserves high praise as a work on operative procedure. The illustrations are the best known to me, which is evidenced by the fact that numerous other authors, as well as teachers, have borrowed them. The greatest fault the book possesses is that a strong writer strongly recommends his own method of operating.

From the teacher's standpoint, it is not well to advocate and teach all methods of operative procedure, but it is necessary to refer to the values of other methods, to enable the student to choose the one to which his individuality mostly inclines.

R. H. H.





Isaiah Haas.

Dr. Isaiah Haas, one of the oldest and best citizens of Evansville, Indiana, died on June 6, at his residence, 1681 Upper Second Street.

Dr. Haas had been ill nearly a year of cancer of the stomach. He received the best medical attention, and the most careful nursing, but the nature of his illness and his great age precluded recovery or even material prolongation of life. For several days death was expected at any minute, and he calmly awaited the summons. Death came while he seemed to be but sleeping, while the members of his family were at his bedside.

Dr. Isaiah Haas was born in Newark, Ohio, February 22nd, 1829. From that place his parents removed to Delaware County, Ohio, and in 1845 to Wabash, Indiana. He received a fair education, such as the schools of the locality furnished, and when not at school assisted his father in the store, as bookkeeper and salesman. In 1849, when the Morse electric telegraph was being extended westwardly, Colonel Hanna, one of the leading citizens of the place, induced Isaiah to go into the office and learn to operate, as the first pupil instructed, a young lawyer of the place, had failed to comprehend quickly. In ten days thereafter he not only understood how to receive and send communications, but many of the principles of the electric telegraph, and he devoted himself to this business for three or four years.

During this time, Ezra Cornell, Esq., of Ithaca, New York, the founder of Cornell University, became lessee of nearly a thousand miles of telegraph line, running in and through Ohio, Indiana and Illinois. This great length of line, with all its offices, men and material, he placed in the hands of Isaiah Haas, as its superintendent, and the energetic and successful manner in which he managed the affairs caused him to receive many flattering letters from Mr. Cornell.

Before leaving the telegraph, his attention was attracted to the profession of dentistry, and he felt that he could make his mark in that line and its practice would be more congenial to his taste, having for his preceptors Prof. A. M. Morse, of Lafayette, Ind., and Prof. Samuel Wardle, of Cincinnati, Ohio, both prominent men in the profession. Prior to coming to Evansville, he spent seven years in Lafayette, Ind.

Dr. Haas's success as a dentist was remarkable, and while an inventor for the good of the profession, he refused to take out patents or enter into

the manufacturing business. His high ideal of his profession was equaled only by his achievements. Many of the dentists in Evansville and in the territory surrounding owe their proficiency and success to the early training which they received under Dr. Haas. Ten years ago he was able to retire from active business to enjoy the fruits of his labor honestly won.

In Masonry, Dr. Haas had a distinguished career. He served as master of Evansville Lodge No. 64, F. and A. M., for several terms, was officer of the grand lodge of the State one year, district deputy master four years, and as lecturer of the district four years. His knowledge of Masonic law and landmarks added to his explanation of the same, made him a very prominent member of the order, and one whose advice was much sought.

Surviving Dr. Haas are his wife and children. The latter are: Mrs. T. H. Taylor, M. M. Haas, Mrs. Fred Cooke, Herbert, Norman, Clarence and Raymond Haas.

Deceased was a prominent member of the First Baptist Church.

CORRESPONDENCE

College Infirmary Charges.

EDITOR ITEMS OF INTEREST:

DEAR SIR—The discussion in July ITEMS OF INTEREST of the article appearing in the May number of the same journal, entitled, "May Colleges Advertise in Public Prints?" has failed to bring into proper prominence the fact that colleges cater to the most desirable class of people instead of the poor people who cannot afford to pay dental fees.

I do not wish to assert that this is true of all colleges, for my observation has not been broad enough to enable me to pass an intelligent opinion upon more than one; but surely no student could attend and graduate from the college I graduated from without being impressed the same as I have been.

When I was in college it was a common occurrence to place medicine into an aching tooth and seal it with gutta percha, and dismiss the patient because he could not pay seventy-five cents (which was a fixed price) for treating and inserting an amalgam filling.

I have in mind just now a young man who came to the college to have several teeth filled (six, I believe), while he was yet weak from an attack of typhoid fever. On being assigned to me, he told me of his poor circumstances, and wanted to know if he could get any reduction from the regular prices. So far as I could tell, he had every appearance of being needy and at the same time worthy. I took him to the demonstrator, who had the department of arranging prices in charge, to see if any reduction could be made. The demonstrator answered by saying that they never inserted amalgam fillings for less than fifty cents apiece, or seventy-five cents for root canal filling covered with amalgam.

This young man went away feeling that he could not have it done. Several weeks later he had regained his health, and secured a position, and returned to have me do the work, which I did, and for which he paid the college according to the above quotations.

My college charged seventy-five cents per sheet for gold. And small sheets they were, too. I was informed from a reliable source that the sheets cost the college less than twenty cents apiece. I have inserted a goodly number of fillings using three sheets, which cost the patient two dollars and twenty-five cents; and if a patient did not have the two dollars and twenty-five cents, he went without the gold filling.

For rubber plates with plain teeth the college charged four dollars. For the same plate with gum section teeth the price was six dollars. Who ever heard of this difference in actual cost of material!

I have seen poor people go away reluctantly because they could not afford to pay these prices.

A fellow-student told me of one case where the demonstrator exacted of a woman five dollars for resetting a set of teeth on rubber. The price of repairing broken plates was seldom less than one dollar.

The conclusion that I am forced into is that this particular college does not aim to do work for the worthy poor, but that they try to draw from the class that should patronize the regular practitioner.

Dr. Gramm, of Chicago, has been endeavoring to establish some place entirely separate from the colleges where the poor people of that city may receive dental services at the smallest possible expense to them.

If the great colleges of Chicago were to seek earnestly for information as to how the poor people may be reached, I think they might receive valuable suggestion from Dr. Gramm. Yours for the good of the profession,

J. W. DANIELS, D.D.S.,

July 10, 1899.

Sidell, Ill.

P. S.—The college I have reference to is the Chicago College of Dental Surgery, from which I graduated with the class of '98.

J. W. D.

College Advertising.

EDITOR ITEMS OF INTEREST:

DEAR SIR—I am glad to see you have called forth some expression on college advertising. We have in our city of 100,000 people two white and one negro college, five advertising offices or parlors, as you please to call them; about thirty-eight practicing dentists besides; so you see we are well supplied with that number. The colleges have set the example here, as in other places. They charge fifty cents for amalgam fillings, fifty cents for a leaf of gold, seven dollars for full set of teeth. They advertise their opening every fall. People go in their carriages, to have work done; people well able to pay a good dentist for his services. Now, Doctor, I am giving this just as it is. I have overdrawn nothing. While I have done no newspaper advertising, I have advertised my prices on my signs at the door; sorry that I had to do this, for I do not think there is anything elevating either to the dentist or the profession. There have been good men driven into advertising through necessity, who would gladly abandon it if they saw their way clear, and the colleges would take the initiative in stopping it. I would be glad any time to stop it if I felt that I could get along and meet the competition without advertising. I write you this to express some feeling of those who are advertising and would quit if encouraged to do so; men who I am sure would be a credit to the profession.

J. T. LACY.

Nashville, Tenn., July 10, 1899.

Disinfecting Not Sterilizing.

EDITOR ITEMS OF INTEREST:

DEAR SIR—In reading the discussion of Dr. Hopkins's paper, I notice the misuse of the word sterilize, and in this instance it leads to some confusion in the discussion.

Your contributors so frequently use sterilize and disinfect interchangeably that I think you should publish the definitions of the words as used by bacteriologists.

Dr. Hopkins says: "The room is always sterilized before the tubes are opened." A room could only be sterilized by burning it up.

Sterilization is the killing of all germs, while disinfection is the killing or rendering non-pathogenic of pathogenic germs.

In the case of implantation, I think the teeth are always disinfected.

Sterilization is very difficult, as some germs will stand a tremendous amount of abuse and still live, while, with but one or two exceptions, all known pathogenic germs are comparatively easily killed or rendered incapable of poison production.

I do not claim to be an authority, but think dental writers are very weak in the use of the two terms.

Very sincerely,

E. K. MEDLER,

University of Michigan, '98.

West Superior, Wis.

Pressure Anæsthesia in Pulp Removal.

Editor ITEMS OF INTEREST:

DEAR SIR:—When I read the item in the May number about painless pulp extraction, I meant to write at once and tell you that Dr. George Collier, formerly of Corpus Christi, Tex., but now of this city, had been practicing the same method for several years, and last year at the meeting of the Texas Dental Association he demonstrated the method in the clinic room, but only this year, after your item came out, did the members of the Association seem to have any faith in it, thus demonstrating that what is published in a popular journal, like yours, will create more interest than all the private clinics combined.

San Antonio, Tex., June 13, 1899.

J. E. BRUDING.

Blacksmith and Shopkeeper as Dentists.

Editor ITEMS OF INTEREST:

DEAR SIR:—Happening to read in an article in the "American System of Dentistry" that "the barber-surgeon has been followed into oblivion by the barber-dentist and blacksmith tooth-puller," I thought it might interest some of your readers to know that the last named species of primitive dentists is still alive and flourishing. I know of two men in small towns in this State, one the blacksmith just mentioned, and one the proprietor of a country store who practice "primitive" dentistry, sacrificing the tooth which the patient points to without the slightest regard to its condition.

The storekeeper dentist gives his services for the purpose of "hearing them holler," while the blacksmith is better satisfied with a pull from a jug of hard cider. One does all the work with a single pair of forceps, and when the tooth "hangs," his stout hearted and strong armed wife clasps her hands around his and then something has to give—generally it is the root well up in the alveolar process, as I found to my sorrow when one of his victims came to me after a hard tussle with a refractory upper cuspid.

EDWIN M. SOULE.

Unity, Me., June 7, 1899.

[The above is respectfully referred to the Board of Dental Examiners in Maine.—Ed.]





National Dental Association.

Wednesday, August 2, has been arranged as the day in which the special agent of the railroad associations will be at a meeting to qualify certificates. All attending should be sure to get certificates when purchasing tickets going from ticket agent, otherwise they will not be entitled to the reduction upon the return tickets. Tickets for reduced rate will be good going July 24 to 27 inclusive, and returning not later than August 9.

Reports from secretaries of sections have not been received sufficiently definite to enable me to issue at this time a complete literary programme.

J. N. CROUSE,

Chairman Executive Committee.

The following corrections in the list of papers to be read at the National Dental Association is made by request of the President, Dr. H. J. Burkhart:

"The Physiological Relation of the Adult Tooth-Pulp to the Economy," C. L. Hungerford, Kansas City, Mo.

"Etiology of Gnathic Abnormalities," A. H. Thompson, Topeka, Kansas.

"Dies and Counter-Dies," Robert H. Nones, Philadelphia, Pa.

"The Dental Profession in Charity: An Experiment in Chicago," Carl Theodore Gramm, Chicago, Ill.

"Some New Points in the Anatomy of the Face and Jaws," M. H. Cryer, Philadelphia, Pa.

Also an important paper by Dr. Williams, of London, England.

The New Brunswick Dental Society.

The tenth annual meeting of the New Brunswick Dental Society will be held at St. Stephen, N. B., August 24, 1899.

A cordial invitation is extended to all members of the profession. Reduced railroad rates.

C. F. GORHAM, Sec'y and Treas.,

42 Coburg St., St. John, N. B.

North Carolina State Dental Society.

The twenty-fifth annual meeting of the North Carolina State Dental Society was held in Raleigh, N. C., May 3-5, inclusive.

The officers elected for the ensuing year were: President, A. C. Liverman, Scotland Neck; first vice-president, E. J. Tucker, Roxboro; second vice-president, W. B. Ramsay, Hickory; secretary, J. S. Spurgeon, Hillsboro; essayist, F. S. Harris, Henderson.

The next meeting will be held in Greensboro, N. C., beginning May 9, 1900.

J. S. SPURGEON, Secretary,
Hillsboro, N. C.

Iowa State Dental Society.

The annual meeting of the Iowa State Dental Society was held at Des Moines, May 2, 3 and 4, 1899. Officers elected for 1899-1900 were: President, C. R. Baker, Davenport; vice-president, C. Thomas, Des Moines; secretary, I. C. Brownlie, Ames; treasurer, W. R. Clack, Clear Lake.

Next meeting will be at Dubuque, first Tuesday in May, 1900.

I. C. BROWNLIE, Secy.,
Ames, Iowa.

Connecticut State Dental Association.

At the annual meeting of the Connecticut State Dental Association, held in Hartford, May 16 and 17, the following officers were elected for the ensuing year: President, H. G. Provost, West Winsted; vice-president, A. C. Fones, Bridgeport; secretary, Edward Eberle, 68 Pratt street, Hartford; treasurer, D. A. Jones, 746 Chapel street, New Haven. Executive Committee—Chairman, P. A. Powers, Meriden; J. Tenney Barker, Wallingford; E. R. Whitford, Hartford.

The following committee was appointed to confer with Dr. E. Sauvez, secretary of the International Dental Congress, at Paris: Jas. McManus, Hartford; G. L. Parmele, Hartford; Civilion Fones, Bridgeport; E. S. Gaylord, New Haven.

The next annual meeting will be held at Hartford, the third Tuesday and Wednesday in May, 1900.

EDWARD EBERLE, Sec.,
Hartford, Conn.

Board of Dental Secretaries of Nebraska.

The new Board of Dental Secretaries (examiners) organized at Lincoln, May 1. The following are the new members with their respective offices: W. C. McHenry, of Nelson, president; H. W. Allwine, of Omaha, vice-president and treasurer; L. N. Wentz, of Lincoln, secretary. The board aims to be active, and will be pleased to co-operate with individuals or societies for the upbuilding of the profession.

H. W. ALLWINE,
Omaha, Neb.

Harvard Dental Alumni Association.

Monday, June 26, 1899, was observed as "Alumni Day," being the third consecutive year by the Harvard Dental Alumni Association. All departments were represented, covering the work of the school for the past year, by the freshmen, junior and senior classes including the staff. Clinics and demonstrations were given, and a symposium and papers by the earlier graduates.

The evening exercises included the twenty-eighth annual banquet held at Young's Hotel, Boston, with one hundred and seven present.

Rev. George C. Louiner, D.D., of Boston, delivered the oration, and other addresses were given by the Dean, Dr. Eugene H. Smith, Prof. Thomas Fillebrown, Dr. Frederick A. Stevenson, of Montreal, Que., and Herbert A. Reed, of the class of '99, who spoke for his class.

Officers elected are as follows: President, Edwin C. Blaisdell, '83, Portsmouth, N. H.; vice-president, Cecil P. Wilson, '72, Boston, Mass.; secretary, Waldo E. Boardman, '86, Boston; treasurer, Harry S. Parsons, '92, Boston.

Executive Committee—Waldo E. Boardman, '86, ex-officio chairman; William P. Cooke, '81; Patrick W. Moriarity, '89, all of Boston.

The Council of the Association is composed of the officers above named.

WALDO E. BOARDMAN, '86, Sec'y,
Boston, Mass.

The Colorado State Dental Association.

A meeting of the Colorado State Dental Association was held in Denver, June 13, 14 and 15, at St. James Hotel.

President, Silvanus Davis, Denver; vice-president, W. T. Chambers, Denver; corresponding secretary, Sarah M. Townsend, Denver; recording secretary, Lloyd S. Gilbert, Denver.

Papers as follows: "Adjuncts to Sterilization," Dr. E. R. Warner, Denver. "Advantages of Systematic Physical Culture," Dr. J. W. Chipley, Pueblo. "Gold Filling," Arthur C. Watson, Denver. "Antiseptics," Dr. J. M. Norman, Denver. "Dental Jurisprudence," Dr. F. F. Graves, Denver. "Some Diseases Incident to First Dentition," Dr. Sarah May Townsend, Denver.

Clinics: "A Method of Treating Pyorrhea," Dr. W. T. Chambers. "Inserting Cohesive Gold Filling with Burnisher," Dr. H. F. Hoffman. "The Use of Ames Metalloid and Oxyphosphate of Copper," Dr. W. T. Chambers. "Some Features of Germ Life Using Cultures and Microscope," T. E. Carmody. "Moss Fiber Gold Filling," Dr. W. E. Griswold. "Articulating Artificial Teeth," L. S. Gilbert.

The attendance was about one hundred. Interesting discussions. The visiting dentists were entertained evenings by the Denver dentists. Next meeting held July 2, 1900, at Boulder, Colo.

Officers elected: President, A. C. Watson, Denver; first vice-president, J. N. Chipley, Denver; second vice-president, Dr. Mary A. Bradner, Denver; corresponding secretary, Dr. Florence Green, Denver; recording secretary, L. S. Gilbert, Denver; Treasurer, Wm. Smedley, Denver.

L. S. GILBERT, Sec'y,
401 Muck Bldg., Denver, Colo.

New York State Dental Society.

At the 31st annual meeting of the Dental Society of the State of New York, held in Albany, May 10 and 11, 1899, the following officers were elected for the ensuing year: President, F. Le Grand Ames, Albany; vice-president, J. I. Hart, New York; secretary, W. A. White, Phelps; treasurer, C. W. Stainton, Buffalo; correspondent, R. Ottolengui, New York.

The American Dental Society of Europe.

The twenty-sixth annual meeting of the American Dental Society of Europe will be held in Brussels on Aug. 7, 8 and 9, 1899.

Arrangements have been made at the Hotel Metropole for the accommodation of the members and their friends, while the meetings will be held at the Hotel Ravenstein.

Brussels and its surroundings are noted for their beauty and historical interest, and no effort is being spared by the Executive Committee to make the meeting especially instructive and pleasant.

A cordial invitation is extended to any American colleagues who may, at the time, be visiting Europe.

WALDO E. ROYCE, Secy.,
2 Lonsdale Gardens, Tunbridge Wells, Eng.

Central Dental Association of Northern New Jersey.

At the meeting of the Central Dental Association of Northern New Jersey, held at Newark, May 15, the following officers were elected for the ensuing year: President, C. S. Hardy, Summit; vice-president, H. S. Sutphen, Newark; secretary, C. W. F. Holbrook, Newark; treasurer, C. A. Meeker, Newark. Executive Committee—W. L. Fish, chairman, Newark; F. Edsall Riley, Newark; C. W. Hoblitzell, Jersey City; W. H. Pruden, Paterson; J. S. Vinson, Newark. Membership Committee—F. Edsall Riley, chairman, Newark; W. H. Pruden, Paterson; C. Alfred E. Hane, Jersey City. Committee on Ethics—H. S. Sutphen, chairman, Newark; C. A. Allen, Rutherford; C. Alfred E. Hane, Jersey City.

C. W. F. HOLBROOK, Secy.,
2 Saybrook Place, Newark, N. J.

